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PRESIDENT . . . . . . A. J. HAZELGROVE (F)

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BY tradition the President is commanded to write a message for the December issue of the *Journal.*

It has been the good fortune of your President to live in Ottawa for some two score years. By happy coincidence this message appears in the number of the *Journal* devoted to the National Capital Plan. The purpose and implications of this Master Plan should be recognised and understood by all Canadians, and the members of our profession can do a great service to Canada by study and explanation of this project to the lay public.

The National Capital Plan is no mere scheme of beautification. It is in essence a far-sighted proposal for practical and orderly development on a scale appropriate to the function of the National Capital.

The Institute extends congratulations to those who inspired The Plan, to those who produced it, and expresses thanks to the distinguished contributors to this special number.

The Report is of intense interest to the Architects of Canada. Of especial note are the recommendations on "Architectural Control" and the "Committee on Aesthetics". Implementation of these recommendations must mean that the future Ottawa will be open to a freedom of architectural expression which does not forbid compatibility with the residual expressions of other days.

On behalf of all members of the Institute, your President is most happy to welcome the newly-formed Newfoundland Association of Architects as a component Society of the Institute. To Mr. W. D. McCarter, first President of the Newfoundland Association and to the Members, we offer congratulations and goodwill.

To the Architects of the Ten Provinces, united as members of the Royal Architectural Institute of Canada, Greeting and a hope that the ties that bind will be strengthened in February when the Annual Assembly meets in Winnipeg.

A. J. Hazelgrove, President

IT affords me much pleasure to write a word of introduction to this Special Number of the *Journal* of the Royal Architectural Institute of Canada.

It is fitting that the plan for the development of our Nation's Capital and its environs should be presented to the architects of Canada in a significant manner. To them and to their successors belongs, in large measure, the all-important function of giving effect to the long range proposals and implications of the plan.

The development of Canada's Capital is, or ought to be, symbolical of the development of Canada itself. It is here, as nowhere else, that expression is given of Canada's growth from a primitive pioneer settlement to a nation among the influential nations of the world.

As the National Capital Plan is developed, future generations will increasingly thank those of today who have not been unmindful of the heritage Divine Providence has given our country in the wonderful setting and surroundings of its Capital City.

We, in our time, may not behold the completion of the plan, but, in furthering its development as contemplated, it will have been our privilege to have seen, and to have been true to the vision.


CANADA
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ST. JOHNS
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SYDNEY
HALIFAX
NOVA
SCOTIA
SAINT JOHN
FREDERICTON
NEW
BRUNSWICK
MONTREAL
QUEBEC
QUEBEC
NATIONAL CAPITAL REGION
MAP OF THE TOURISTIC CIRCUITS
AND OF THE PROTECTED NATURAL SCENERY
AS PROPOSED ON THE MASTER PLAN
REGION DE LA CAPITALE NATIONALE
CARTE DES CIRCUITS TOURISTIQUES
ET DES SITES NATURELS PROTEGES
EN APPLICATION DU PLAN DIRECTEUR

I AM very happy to comply with the request of the editor of the *Journal* to write a few words of introduction to the plan for the development of the National Capital as presented to you in this issue by Mr. Jacques Gréber of Paris. In 1858 Ottawa was chosen as the Capital of Canada but Canada then was but a Union of what are now known as the Provinces of Ontario and Quebec. It would seem that the then Government of Canada had some glimpse of the future Capital when they conceived and built in the 1860's the group of three buildings on the large and commanding site known as Parliament Hill. They were in their day criticized for building far beyond the needs of the country and in much too extravagant a manner. What a pity, however, they had not gone farther and reserved Wellington Street for government use. One could easily think of other reservations which in those days could so easily and cheaply have been made. Mr. Gréber's plan is an attempt to prevent the country from falling into the same error again from lack of foresight and vision.

Some there may be who think, like the critics of 1860, that the plan for the capital of the future is on a far too large and magnificent scale than will ever be required or desired by Canadians. Is it not a truism, however, particularly in the art of planning in a vigorous and growing young country, that many more mistakes have been made by under-daring than by over-daring? Within a few years after Ottawa had been chosen as the capital, Canada passed through a profound physical and political change. The two provinces had expanded into a great federal state. Neither the organization nor physical features of Ottawa were changed to meet its increased dignity. The seeming anomaly of this situation from an organizational point of view still remains. We have never, however, as a people been greatly disturbed by any anomalous or logically indefensible situation provided it works smoothly. The aim, therefore, is to pursue the objectives laid down in the Report in a thoroughly democratic way without the disturbance of any existing jurisdictions in spite of the fact that the necessary authority is divided between the federal government, two provincial and thirty-odd municipal bodies.

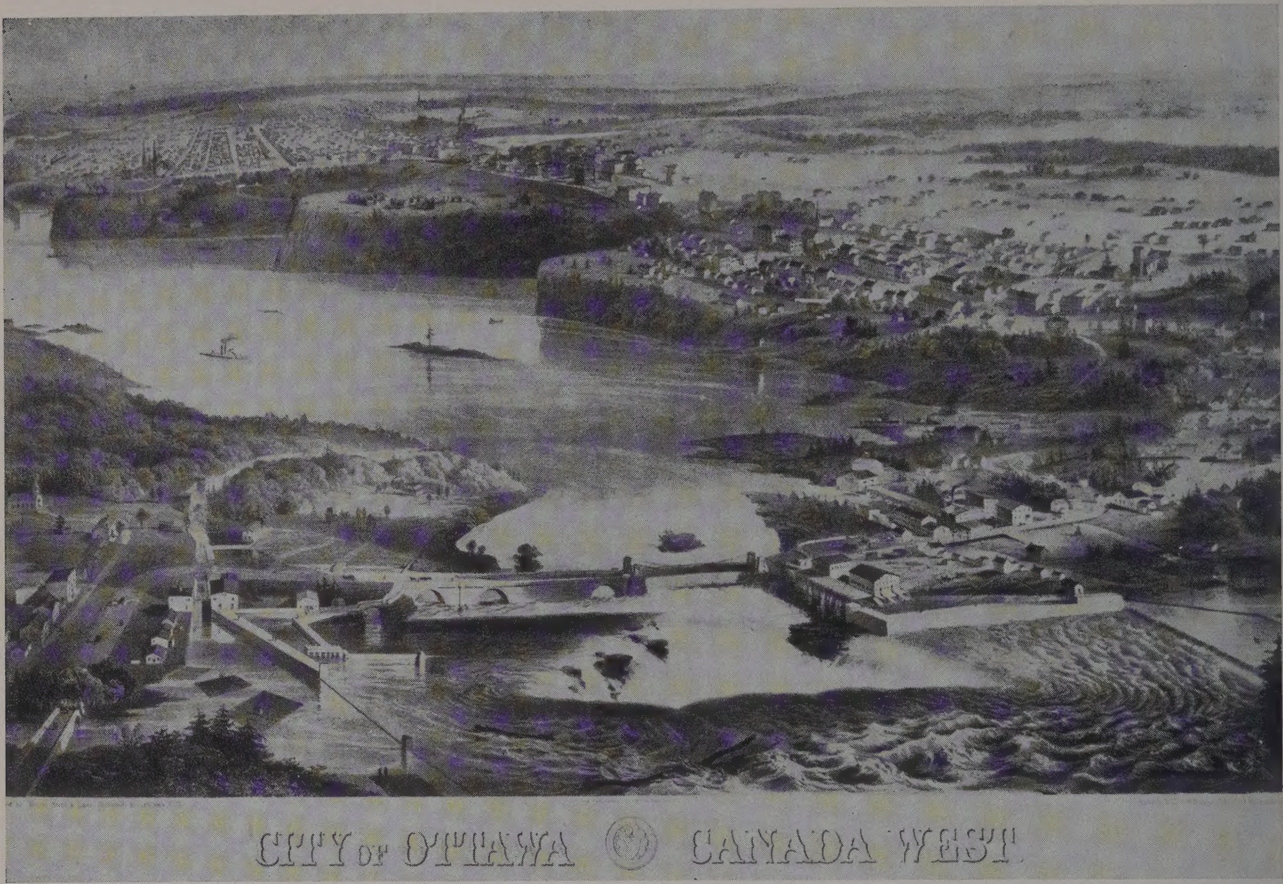
The start of the first conscious and continuous effort to create a capital was taken by Sir Wilfrid Laurier when he requested parliament to set up the old Ottawa Improvement Commission and endowed it with an annual grant of $60,000.00 a year. The first professional report on what should be done was made by the late Frederick Todd a very prominent landscape architect of his day. The present system of driveways is largely based on this report.

Just ten years later, in 1913, it was felt by the government of Sir Robert Borden that a more comprehensive report embracing the whole metropolitan areas of Ottawa and Hull was required, consequently, we had the very outstanding report of the Federal Planning Commission published in 1915. This report was directed by Mr. E. H. Bennett, consultant on town planning, and Mr. E. L. Cousins as consulting engineer. Unfortunately, the Great War which was then working up to its climax and the period of economic and political uncertainty afterwards prevented any money being voted by parliament to implement this report.

In 1927, under Mr. King's direction, the first step toward the practical development of this report was taken when the commission was enlarged and directed to include the neighbouring City of Hull within the scope of its plans. In 1944 a further step was taken by the appointment of a joint committee of both the Senate and the House of Commons which was representative of all political parties. This committee was instructed to inquire into the relationship between the federal government and the City of Ottawa. From its deliberations came an unanimous report which largely laid down the basis for the creation and subsequent efforts of the committee which had been responsible for many of the basic features of Mr. Gréber's preliminary report.

It has taken fifty years' effort to produce the actual physical results already in evidence. During this time because of the spiritual, physical and economic trials which Canada has had to meet and overcome there seems to have grown up the deep conviction that we are now a nation in our own right within the commonwealth and beside the other democracies of the western world. This it would seem is largely responsible for the feeling that the National Capital belongs to all the people of Canada and should be developed with a feeling and knowledge of its representative character. Given peace the developments of the next fifty years will undoubtedly far surpass those of the first fifty.

F. E. Bronson,
Chairman,
Federal District Commission



INTRODUCTION

POUR toute nation, la Capitale est le reflet, le symbole de son évolution, de son progrès, de son rythme de vie, de son degré de civilisation. Elle est le témoin permanent de son histoire.

Le Canada de 1945, par ses immenses sacrifices au cours de deux guerres trop voisines, à la conduite victorieuse desquelles il a largement contribué, s'est acquis le rang de grande nation. La richesse de sa terre et les ressources illimitées de son sous-sol lui permettent de conserver et de renforcer encore, dans la paix, sa place de premier plan si chèrement gagnée dans la guerre.

Ottawa, jeune capitale fédérale, voit désormais son rôle prendre une importance nouvelle dans les contacts internationaux qui s'imposent au pays. C'est pour elle une évolution inéluctable, dangereuse même, si le développement rapide qui en résulte n'est pas prévu, organisé et contrôlé.

Avant même la fin des hostilités, le Gouvernement et le Parlement Canadiens ont compris la nécessité de faire d'Ottawa une Capitale à l'échelle du Canada moderne, et ont décidé d'en préparer le Plan Directeur. Par une sage notion de l'économie, Gouvernement et Parlement ont écarté tout programme étriqué, limité aux besoins immédiats de la ville administrative. Ils ont montré leur vision large et prudente de l'avenir et compris que seule, une conception d'ensemble, prévoyant l'aménagement général de la région de la Capitale, pouvait assurer rapidement et sans fausse manoeuvre, l'organisation et la mise en valeur graduelle des territoires urbains et suburbains qui composent cette région.

Pour marquer la signification nationale — et internationale — de cette vaste entreprise, qui s'échelonnera sans doute au cours des deux générations à venir, il a été décidé que le projet serait dédié à la mémoire des

Canadiens qui sont tombés au Champ d'Honneur pendant la Deuxième Guerre Mondiale.

Lorsqu'en août 1945, le Gouvernement Fédéral me fit le grand honneur de solliciter mon concours pour l'accomplissement de cette tâche, j'en compris le caractère hautement national et en proposai le programme de réalisation suivant, qui fut aussitôt adopté:

Sous l'autorité du Ministre des Travaux publics (Division de l'Architecte en Chef) un Service d'Aménagement de la Capitale Nationale, composé d'architectes, d'urbanistes et d'ingénieurs canadiens, aidés de mes conseils, assure la préparation des projets.

Nos travaux et recommandations sont soumis à l'examen du Comité d'Aménagement de la Capitale Nationale, émanation directe de la Commission du District Fédéral, dont chacun connaît les remarquables réalisations accomplies pendant les dernières décades en de nombreux points de la Capitale.

Comme il convenait, une place prépondérante a été faite aux architectes dans la composition des divers organismes qui collaborent au Plan de la Capitale: Au Service d'Aménagement, mes deux adjoints, Monsieur J. M. Kitchen et Monsieur Edouard Fiset, sont tous deux membres de l'Institut. Notre chef de dessin, Monsieur Jean Issalys, est diplômé de l'Ecole des Beaux-Arts de Montréal. Le Comité d'Aménagement compte parmi ses membres Monsieur Charles David, ancien président de l'Institut, et Monsieur A. S. Mathers, qui forment, avec Monsieur J. A. Ewart, le sous-comité d'esthétique. Enfin, Monsieur Gaston Amyot représente la Province de Québec à la Commission du District Fédéral. En outre, tous les bâtiments publics compris dans le vaste programme d'aménagement de la Capitale sont confiés à d'éminents architectes canadiens, dont les travaux se poursuivent en pleine collaboration avec notre Service.

L'ensemble des études a été entrepris avec le concours des Gouvernements provinciaux, des municipalités comprises dans la région et de toutes les grandes administrations intéressées aux problèmes multiples qui les concernent.

Sur avis d'un rapport du Comité mixte du Sénat et de la Chambre des Communes, et suivant les termes de l'Ordre en Conseil du 16 août 1945, le Gouvernement a défini le territoire régional de la Capitale comprenant environ 900 milles carrés dont 536 dans la province de Québec et 364 dans la province d'Ontario.

Ce vaste territoire dépasse de beaucoup les zones urbaines occupées par les villes d'Ottawa, de Hull et par les municipalités environnantes, mais il comprend de vastes espaces ruraux qui encadrent le groupement urbain et une partie des belles forêts de la Gatineau, qui représentent un patrimoine touristique inestimable.

Le premier devoir du Service d'Aménagement était de dresser un bilan exact de cette région, de montrer tous ses avantages, tous ses défauts, tous ses besoins présents et futurs, pour en préparer sans risques d'erreur ou d'oubli, la charte de développement pour l'avenir.

Cette analyse profonde, entreprise depuis janvier 1946 et qui fait encore l'objet d'investigations continues, est condensée dans la première partie de notre rapport intitulée "Enquête Documentaire". Le Projet lui-même en est la conclusion logique.

L'analyse démographique et sociale nous a d'abord donné les moyens de délimiter le périmètre probable d'extension de la zone urbaine. L'étude des communications routières et ferroviaires nous a fourni la clé essentielle de tout le problème, car la répartition rationnelle du territoire habité et des lieux de travail, serait sans objet si les moyens de circulation, et l'équipement des transports n'étaient pas strictement subordonnés à la facilité des déplacements et au confort des populations. Ces deux premières conditions de l'aménagement urbain sont valables pour toute ville, quelle qu'en soit la fonction.

Mais la Capitale du Canada pose un problème supplémentaire, celui de son équipement spécial pour sa fonction de siège du Gouvernement, du Parlement, des multiples représentations diplomatiques, d'un nombre grandissant d'administrations et d'institutions de caractère national.

Enfin, pour lui permettre d'assurer l'accueil, et le succès de nombreuses conférences et réunions nationales et internationales, auxquelles il convient d'ajouter le passage d'innombrables touristes canadiens et étrangers, il fallait doter la Capitale d'un certain nombre d'édifices publics indispensables à l'épanouissement de manifestations culturelles, dans un cadre de haute dignité.

La réalisation de ce cadre était la partie la plus facile de notre tâche, car grâce à ses multiples avantages naturels encore intacts, la région d'Ottawa n'appelle pratiquement aucun projet d'embellissement, la nature s'en étant chargée. Les urbanistes, en cette matière, ont pour ainsi dire un rôle négatif, qui n'est cependant pas sans importance. Il s'agit seulement de consacrer et de protéger par des règlements appropriés, tous les éléments de beauté existants. Il est rare qu'un territoire urbain se prête avec autant de possibilités à la réalisation d'un programme de protection esthétique.

L'image fidèle du paysage qui sert de cadre à la région de la Capitale, est reproduite dans nos plans et dans les maquettes qui les illustrent.

On nous a parfois reproché d'avoir vu trop beau et trop grand; cette critique est en réalité un compliment, qui ne s'adresse pas à nous, mais au Créateur. Notre mérite n'aura été que de proposer les mesures efficaces pour le maintien d'une beauté gratuitement et largement dispensée à cette région symbolique de l'union des deux grandes races qui ont formé la Nation Canadienne.

Jacques Gréber, Hon. F.R.A.I.C.

PREFATORY NOTE

The text hereafter presented is comprised of extracts and summaries of the Preliminary Report submitted on December 31st, 1948, to the National Capital Planning Committee and tabled in the House of Commons on April 30th, 1949, following its recommendation by the Federal District Commission.

This report is now being revised and completed in final form, to become the General Report. It consists of four parts: General Survey, Description of Proposals, Schedule of Operations and General Recommendations. A limited number of coloured reproductions, photographs, plans and diagrams, representative of the illustrations of the General Report, are presented in this article.

The printing and publishing of the General Report has been entrusted to the King's Printer and it is expected to be completed and made available for sale to the public by the beginning of the coming year.



LEGEND

INTERPROVINCIAL BOUNDARIES
COUNTY BOUNDARIES
TOWNSHIP BOUNDARIES
MUNICIPAL BOUNDARIES

ADMINISTRATIVE BOUNDARIES
WITHIN THE NATIONAL CAPITAL REGION
1948

THE NATIONAL CAPITAL PLANNING SERVICE
J. GRÉBER — CONSULTANT
0 1 2 3 4 MILES

PLAN FOR THE NATIONAL CAPITAL OF CANADA



IT is customary to complain about the lack of vision of Governments and Parliaments in regard to city planning improvements: "They generally favour immediate but short-sighted solutions, rather than long-range conceptions". Such misconceived economy always results in utterly inadequate and wasteful undertakings.

On the contrary, the Federal Government and the Parliament of Canada showed great foresight when they decided to establish a National Capital Region with a view to the preparation of plans for a suitable long-term development of such area.

They recognize that a Capital city is the symbol of the life and progress of a nation, the *permanent witness of its history*. They know, and to a great extent they are responsible, that Canada, through her remarkable contribution to the victorious endings of two world wars, has acquired the rank of a great nation. They believe in the future of their country, based on unlimited material possibilities in agriculture, mineral resources and industry. Consequently, they desire that every Province of the Federation, that every citizen, not only of the Capital, but of all towns and villages in Canada, be equally proud of the place where the heart of the Nation beats, where all their particular hopes and aspirations are co-ordinated, united, and protected.

Such an objective could only be attained through a comprehensive, profound and broadminded conception, a *"master plan"*, of the whole territory upon which the Capital is bound to extend its life and attraction.

This plan is a National undertaking; it requires the co-operation of many Canadian experts, in administration, design, technical equipment, housing, social welfare, sanitation.

To this purpose, the *National Capital Planning Committee* was appointed in March 1946, as the directing and co-ordinating board, while all technical researches and proposals were prepared by the *National Capital Planning Service*, under my direction as Consultant. Our work is submitted for the approval of the National Capital Planning Committee, in view of its recommendation to the Government through the Federal District Commission.

The plan of a National Capital has a double scope: It is the normal chart of development of the existing cities and municipalities forming the Capital, with the view of ensuring the comfort and welfare of their inhabitants; it must also answer the many problems related to the life and the function of a capital, i.e., government, parliament, diplomatic life, national and international conventions, in an atmosphere of dignity, welcome, and order. These two different aspects have been thoroughly studied, and appropriate solutions had to be worked out to satisfy immediate and urgent needs, as well as to prepare the long-range operations of ultimate development.

GENERAL SURVEY

PART 1

It would have been relatively easy, after a superficial survey of existing conditions and trends, to prepare an idealistic plan, which the most favourable natural setting of the region might have made very attractive, but such procedure would have proved completely impractical.

Hence, the first and most important concern of the Service was to concentrate on an extensive and detailed research, referred to herein as the *General Survey*.

The *General Survey* is of vital importance. It is the true picture of the region in all of its different aspects and shows its advantages, its deficiencies, its needs, present and future. It forms the sure basis for the practical elaboration of the complex chart of development of the region, for a period of possibly fifty years.

PHYSICAL CONDITIONS

The National Capital Region, as defined by Order in Council of August 16th, 1945, following a Report of the Joint Committee of the Senate and House of Commons, comprises about 900 square miles (536 in the Province of Quebec, 364 in Ontario). The Ottawa River is the Provincial boundary, but more exactly, it forms the main physical feature of the urban centers of Ottawa and Hull.

The regional territory comprises 19 square miles of built-up areas, 479 square miles of farmlands, 332 square miles of woodlands and 70 square miles of water (rivers and lakes).

The highest part of the region lies north of the Ottawa River, on the pre-Cambrian upland, where the Gatineau "mountains" reach an altitude of 1,300 feet above sea level. Parliament Hill in Ottawa is at elevation 300, the river level being about 140 feet below the foot of the cliff. South of the Ottawa River, the average land elevations are between 225 and 470 feet.

The climate is temperate, but continental. Abrupt variations are due to the prevailing westerly air stream, which follows the valley of the Ottawa River and to the influence of the Great Lakes, which, in winter, modify the cold waves from the west.

The geology of the region is varied and complex. The oldest rock formations, dating back possibly a billion years, are the intrusive, or granitic rocks. Ancient seas have deposited sediments, shales and limestones. Later, the land rose and the seas withdrew. During the glacial ages, ice covered a large part of the ground, with intervals of milder temperature, interglacial flooded periods, and successive depressions and rises of the land, until the topography became much as we find it today.

Two contrasting types of topography in this region are related to the two characteristically different kinds of rock formations, i.e., the topography of the highlands north of the Ottawa River, in which we find the pre-Cambrian rocks, is rugged, with hills and precipitous slopes: the topography of the lowlands south of the river is gently sloping or undulating. In this area we find the Palaeozoic sedimentary rocks and the deep soils left by the glaciers and the sea.

Hydrography

The region is drained by the Ottawa River and its tributaries. The Ottawa River is the main stream and flows in a generally easterly direction across the region. The river has not an even gradient, but consists of a series of lake-like expansions or stretches, separated by falls and rapids. At the Chaudiere Falls near Ottawa the river falls 25 to 30 feet over flat-lying limestone. Above Deschenes Rapids, near Britannia, the river occupies in part a broad rock valley and forms an extensive lake-like expansion known as Lake Deschenes, some two miles in width.

The Gatineau River, the second largest stream in the area, joins the Ottawa River from the north, opposite the city of Ottawa. Within the region its waters are dammed for power development purposes at Farmers Rapids, situated some four miles north of its junction with the Ottawa River. For the upper part of its course it flows in a deep rock valley.

The Rideau River, coming from the south, enters the Ottawa River at the city of Ottawa where it falls some 50 feet over the limestone escarpment which forms the south bank of the Ottawa. On top of the escarpment, the river is divided by Green Island, forming twin falls, which from their curtain-like appearance were named Rideau Falls by the early explorers.

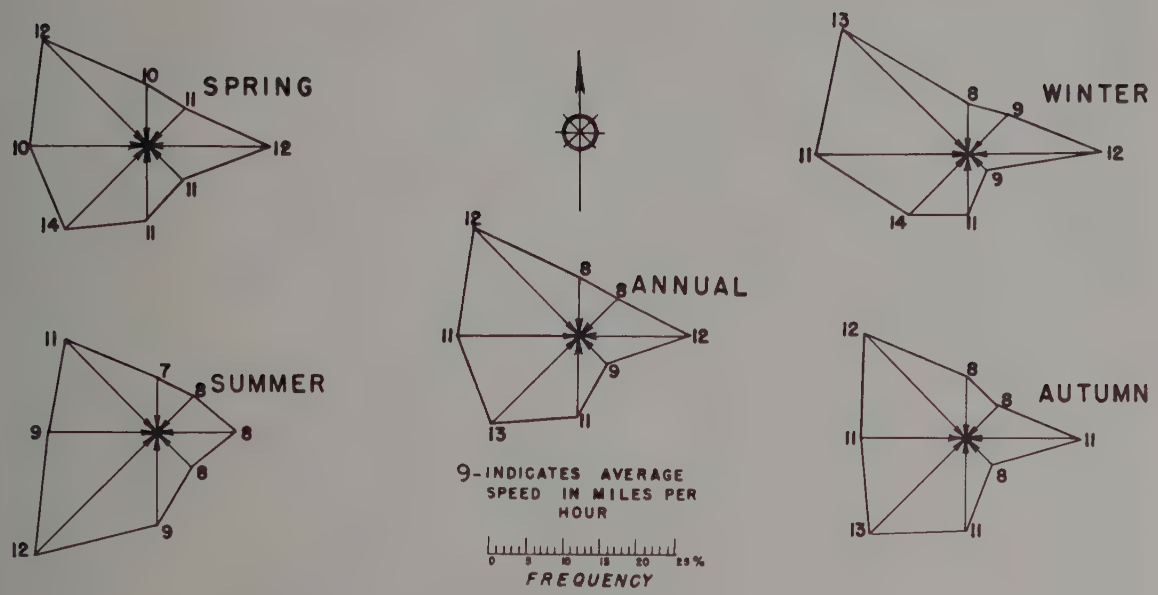
The use of this historic name was extended to the river and to the many lakes in which it finds its source and from which it flows to the Ottawa River.

Much could be said on the distinctive characteristics of these rivers, consequent to the differing natures of the lands through which they flow. The Gatineau drains the northern countries, region of mountains and forests; the Rideau drains the southern countries, flat areas of marsh and farmlands.

Flood Conditions

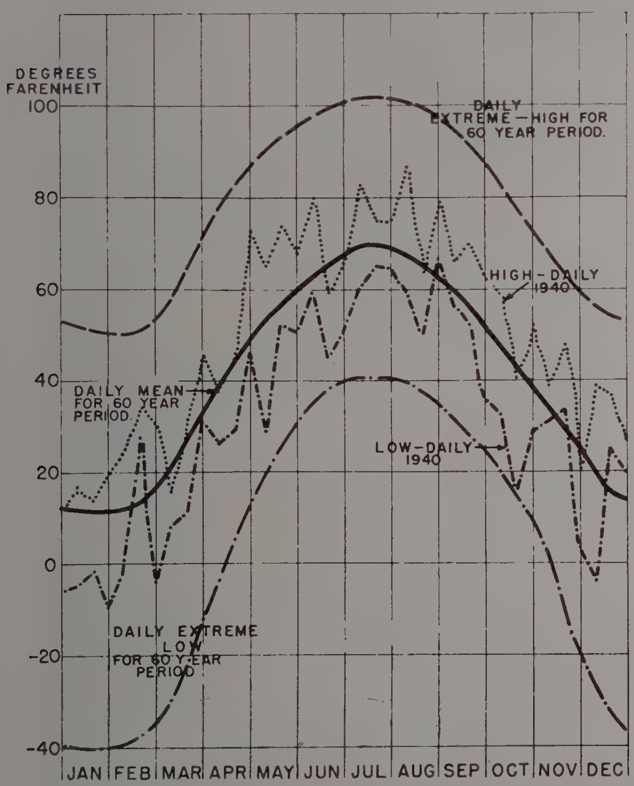
Typical of northern waterways, the seasonable water flow of the Ottawa River varies from that of quiet placidity in the summer and fall seasons, to extreme

WINDS



TEMPERATURES

CITY OF OTTAWA



turbulence following spring thaws, particularly where rapids and waterfalls occur and at the narrow parts of the river.

The periods of high waters give rise to flood conditions which, in the urban areas of Ottawa, Hull and vicinity are the cause of extensive property damage. Such conditions are of frequent occurrence in lowlands situated on the northerly side of the river. Similar conditions are frequent on the Rideau River. Local authorities are alert to this situation, but despite organized efforts, conditions develop and the onrush of water presents itself with a sudden destructive force that cannot be offset.

In the matter of flood control, the Provincial Governments of Ontario and Quebec have brought to bear on the problem the full resources and facilities of their specialized Departments, in an effort to eliminate this constant menace.



CHAUDIÈRE FALLS AND ISLANDS (1857)

HISTORY*

The history of the Capital Region is associated with the names of the first discoverers.

The Ottawa River, which later gave its name to the Capital City, "was the route taken by the Outaouats, the men of the forest". The "road that walks", according to the Indian expression, the Ottawa continued to serve as the great trade artery, after the arrival of the Europeans in the St. Lawrence, in 1535, with Jacques Cartier, the country's discoverer and first explorer. The first white man to appear before the site of the Capital was, in 1610, Nicolas de Vigneau. Three years later, in June 1613, Champlain himself, the founder of New-France, camped on the spot. He described the "arcade" formed by the Rideau Falls and the rampaging cascade which the Indians, by reason of its boiling eddies, named Asticou, in French the Chaudiere. Under British rule, until the construction of the railways, the Ottawa remained the main artery of transportation and communications, because it was the shortest. The first Englishman to ascend its course was, in 1761, the trader Alexander Henry. In the years that followed, there tramped by the foot of the surging, foam-flecked rapids the most famous barons of the Beaver Club, Frobisher, McTavish and Alexander Mackenzie, also two celebrities of their day, Lord Selkirk, founder of Manitoba, and Sir John Franklin, the Arctic explorer.

Then, in 1800, there arose, alongside the trader, the man of tomorrow, the settler. He is Philemon Wright, of Woburn, Massachusetts. He took up residence with five families on the opposite shore, on the present site of the city of Hull. Following the close of the Napoleonic wars, the year 1818 witnessed the arrival of the first group of numerous emigrants, disbanded soldiers, who were given land grants at Richmond, along the Rideau River.

A project of great military importance, which had been under consideration for a long time, took shape simultaneously. During the war of 1812, the capture of Toronto

*Extract from the Final Report, Chapter on History of the National Capital Region, by Dr. Gustave Lanctot, President of the Royal Society of Canada, and former Deputy Minister of Public Archives.



LOCKS ON THE RIDEAU CANAL (CIRCA 1840)

and the march of an American army on Montreal, that threatened to sever communications by the St. Lawrence River between Quebec and Montreal, revealed the necessity of finding an alternate route beyond all danger of occupation by the enemy. Following several technical reports and surveys on the subject, the General Staff decided in favour of a route which, making use of the Ottawa and Rideau Rivers, would link, beyond all hostile attacks, the two Laurentian ports of Montreal and Kingston.

In April, 1826, Lieutenant-Colonel John By, of the Royal Engineers, was appointed to direct the construction of a canal which, by making use of the Rideau, would ensure uninterrupted navigation between Montreal and Kingston. In September, following a final examination of the land, the officer adopted the direction followed by the Rideau Canal. *The foundation of the Canadian capital may be dated from that month.*

During the five-year period its construction entailed, the work on the canal had attracted and detained many workmen and unskilled labourers who settled on the present site of Ottawa. Their presence, in turn, attracted craftsmen of every trade, merchants and shopkeepers, so much so that the locality, which took the name of Bytown, in honour of the builder of the canal, soon numbered a population of about 1,000 souls. In the absence of any war, the canal was never used for military purposes, but, on the other hand, it did open up to settlement a region of fertile land, facilitated the transportation of goods and agricultural products, and contributed in various ways to the development and progress of a whole vast area straddling two provinces.

At this time, the felling of trees and the floating of logs constituted the sole regional activity. This industry, log cutting and floating, required enormous quantities of provisions and goods for the loggers and raftsmen, whose stay in the locality increased tenfold, from year to year, the trade of the shopkeepers and artisans, and contributed to a steady growth of the population, so much so that in 1841, the latter amounted to more than 3,000 souls. To this was added, as early as 1852, the construction of several sawmills, which soon doubled the production and trade of Bytown and Hull, her neighbour.

In 1854, the first railroad, operating from Prescott to Bytown and connecting with the Montreal-Toronto line, marked the inauguration of a regular service, with the

trains travelling at a speed of ten miles an hour.

With the expansion of the lumber industry and the increase in the agricultural population of the region, the village of the early days had grown from year to year, to the extent of becoming the county town of the district as early as 1842; it also boasted of having three weekly newspapers since 1836. Constituted a town municipality by a statute enacted in July 1847, afterwards disallowed by royal revocation, Bytown resumed her title of town in January 1850 and chose her first mayor, John Scott, a lawyer. Constantly growing in numbers, importance and prosperity, proud of a population of 10,000 souls, the ambitious little town soon sought and secured legal status as a city, in January 1855, with the right to exchange the too common name of Bytown for the more rare and harmonious appellation of *Ottawa*.

In the meantime, United Canada, which consisted of the Provinces of Ontario and Quebec, since 1841, had not yet finally settled on the location of her capital. Her parliament held its first sessions in Kingston, to the dissatisfaction of all the members. Unable to make a definite selection, the Legislative Assembly decided to sit alternately every four years in Quebec and Toronto.

This system of a movable capital proved to be difficult, complicated and quite costly. The question again arose of choosing, finally, a permanent capital. Six cities claimed that honour: Montreal, Quebec, Toronto, Kingston, Hamilton and Ottawa. The youngest and the least populated, the last named presented, on the other hand, at least at that time, an impressive array of advantages: remoteness from the frontier, security from all threat of occupation, *facility of communications* with all the large cities of the country, *favourable location on the boundary line of two provinces,* half-way between all points, *the centre of a promising region,* and *remarkable beauty of the site and surroundings.* Confronted with these advantages, Queen Victoria advised the government, December 31, 1857, that *she was choosing Ottawa* as *the capital of United Canada,* a selection the Legislative Assembly barely confirmed by a vote of 64 to 59.

Without loss of time, construction of the Parliament and Government buildings was started immediately after acceptance of the plans of architects Fuller and Jones, providing for structures of Gothic style. Chosen as a site for the halls of the nation, was the eminently favourable headland flaunting the escarpment above the broad bend of the Ottawa River between Nepean Point and Victoria Island. The site affords a magnificent view of the scenery, harmonious and picturesque, interspersed with cultivated plateaux and wooded hills, with, as a background, the summits of the Laurentians undulating softly, mauve-tinted in the evening, against the blue sky of the distant horizons. On September 1, 1860, the Prince of Wales, later King Edward VII, laid the corner stone of the main tower, but it was not until June 8, 1866, that the first legislative session, held in Ottawa, opened in the stately Parliament building. On that day, to the great pride of her 20,000 citizens, Ottawa witnessed the fulfilment of her dream, for long apparently chimerical, of becoming *the capital of the country.*

Following several conferences, the four provinces of Quebec, Ontario, Nova Scotia and New Brunswick formed, July 1st, 1867, a *confederation* that took the name of *Dominion of Canada.* Ottawa now became the capital of a very vast country which soon trebled its dimensions by the acquisition of the North-West Territories and by the annexation of two new provinces, British Columbia in 1871 and Prince Edward Island in 1873, with the result that the young capital now governed a country stretching from the Atlantic to the Pacific, and from the Arctic to the United States boundary.

Risen to the rank of an autonomous colony, endowed with enormous resources, Canada still grouped but a small population of 3,000,000 inhabitants, scattered in seven provinces, but united by a common allegiance and the steel bonds of her railways extending from Halifax to Vancouver. However, there soon developed, slowly yet surely, a substantial agricultural advancement and a solid industrial expansion, under the aegis of Sir John A. Macdonald's national policy, expansion and advancement which increased the Canadian population to 5,000,000, while the Capital was to witness a rise in the number of her citizens from 43,000 souls in 1891 to 60,000 in 1901.

An intense propaganda set in motion such an annual influx of immigrants that in 1911 the population rose by successive leaps and bounds to 7,000,000 souls, an increase of 2,000,000 in ten years while Ottawa, keeping pace with the growth of the country, was extending her boundaries and swelling the number of her inhabitants to 90,000, a remarkable figure for a city in existence but 60 years. While a growing political autonomy was becoming more marked, an Imperial preference policy was increasing commercial exchanges to unprecedentedly high levels, so much so, that Laurier, the moving spirit of this progress on the two fronts could rightly exclaim: "The twentieth century will be Canada's century".

At this very hour, the first world war was touched off. To the appeal of nations to right and freedom, Canada answered magnificently: volunteers for the most part, 620,000 men took up arms and four divisions fought gloriously on the European front. In the face of such splendid collaboration, neither Great Britain nor the United States could deny to Canada's representative, Sir Robert Borden, the right and the honour to affix his signature to the Treaty of Versailles. By one stroke of the pen, the country attained national independence and acquired the stature of an international power, accessions confirmed by the Imperial Conference of 1926 and embodied in the Statute of Westminster. From then on, Canada signed her own treaties and appointed her own ambassadors, while accrediting to her country diplomatic representatives from abroad. From a political capital, Ottawa rose to the rank of *an international capital.*

The war, however, had dealt her a hard blow. In February, 1916, a fire set by a German hand destroyed her first Parliament Building. Soon rebuilt according to a broader plan of architect John Pearson, the magnificent monument, which retained the Gothic style, dominates, since 1920, with its lofty Peace Tower, the whole city and surrounding landscape. In those years, with the creation of new departments and the multiplication of administrative services, the population showed a rising curve to which the construction of new commercial buildings and apartment houses also contributed, so much so, that it reached the figure of 120,000 souls in 1930.

During the trying years of the economic crisis, first felt in 1929, political Ottawa, like the remainder of the country, fought gallantly, and lent a helping hand wherever distress was experienced. The Capital was directing a sound economic recovery on all fronts when she extended a triumphal welcome, in May, 1939, to his Majesty George VI and his gracious Queen Elizabeth. In the course of this visit, a unique occurrence was recorded in history, the sovereign of the British Empire presided over a sitting of the Canadian House of Commons.

Three months later, there broke out the second world war. Once again, in defence of justice and civilization, the country girded its armour: this time, one million Canadian men and women joined the armed forces, and soldiers from the land of the Maple Leaf outdid themselves in deeds of valour on the battle-fronts of Italy, France and Holland. At the same time, Ottawa assumed all economic controls, raised stupendous amounts of public monies, improvised a huge industry, exported overseas immense quantities of arms and munitions, wheat and provisions. In due proportion to its population, no country made such a gigantic military, economic and financial contribution, a contribution that had its counterpart after the war in the form of extraordinary help to impoverished or devastated European nations. Today, once again, war has enhanced Canada's fame as never before and revealed this country, which is not yet fully aware of her potentialities, as a *real international power of the first magnitude.*

On the other hand, by centralizing around its departments' manifold organizations and boards, the war had rapidly augmented the population of Ottawa which now reached a total of 165,000 souls. At the same time, the Capital revealed herself a tourist centre of rare attraction, a quite natural result, for besides her political importance are to be found the interest of her public monuments, the charm of her site and the attractiveness of her surroundings.

A political capital, Ottawa has long shown concern for her physical enhancement through town planning and thus prove worthy of her role and future. The initiative in her beautification is due to Sir Wilfrid Laurier who, as early as 1896, asked that she become "the Washington of the North . . . ".

EVOLUTION

The rapid growth of the urban areas of the Capital is obviously due to several reasons: the construction of the Rideau Canal, the subsequent installation of railways, the choice of Ottawa as the Nation's Capital, and the development of industries. But while these factors were incentives to prosperous development, they also were detrimental to each other, because of a complete lack of co-ordination and previous planning. Hasty settlement, insufficient surveys, artificial concession limits and consequently inadequate subdivision, regardless of topography, have resulted in poor communications and blighted areas, in which residential sections are invaded by commerce, industries and railway yards. The growing demand for new public buildings for the housing of personnel, for better community planning, for parking areas, public transportation and cultural facilities, has created urgent difficulties calling for immediate remedial action.

DEMOGRAPHY

The total population of the National Capital Region is approximately 273,000, i.e., 212,000 in Ontario, and 61,000 in Quebec. The diagrams show a firm tendency towards a continuous increase.

The average density is relatively small: in Ottawa 57.4 per acre in the most populated ward, 18.0 in the least developed. And in the fashionable residential development of Rockcliffe, only 4.8.

The urban area counts for about 238,000, which is rather close to the estimated figure of 250,000 in 1950, foreseen by the authors of the Holt Report in 1915.

The present distribution of English and French speaking populations in the Capital Region is a representative symbol of the whole Canadian people. Similar comment may be made about the proportion of religious denominations, with a slight difference in favour of the Roman Catholic faith, due to its French and Irish components.

An analysis of active population shows a predominance of civil servants, expressive of the function of the capital. This includes not only the official census of civil servants directly occupied in governmental work (about 35,000), but also the various professions indirectly depending upon the Government and administration.

It is a fact that most of the artificial capitals, limited as they are to their governmental and administrative functions, are economically a burden to their Nations, unless they gradually acquire the normal character of self-supporting communities. Ottawa presents this fortunate condition, not that of a huge metropolis with complex problems, but a city of reasonable importance, spacious and uncongested. It is already basically fitted for a well balanced and self-supporting community life, through normal enhancement of commercial and industrial activities, within a large frame of farm and woodlands, completing the cycle of collective life of a total population which might double in number within the next two generations.

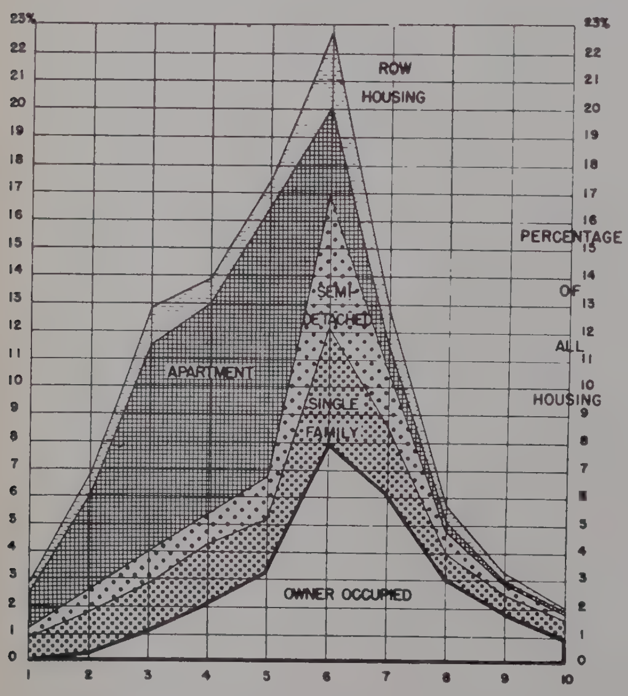
HOUSING

The study of housing conditions is of major importance. In general, housing standards within the urbanized regions of Ottawa, Hull and their environs compare favourably with other North American cities of similar size, and are superior, in many respects, to some cities less favourably situated from the point of view of natural environments.

Within the whole region an extensive analysis has been made of housing in relation to population density, to types of houses and their occupancies, to rentals and earnings.

The detrimental factors presented by the various diagrams show distinct tendency to manifest themselves within common areas of depressed housing, i.e., population density in the form of crowded households, low rentals, doubled-up families and dwelling accommodations of subnormal standards and conveniences. Further, such conditions invariably occur within areas of low land and building values, traceable in almost every instance to such factors as the proximity of railroad lines and yards, industry, certain types of commercial nuisance, and to the development of lands initially unsuited for housing.

ROOMS PER HOUSEHOLD
BY TYPE OF HOUSING
CENSUS 1941



NUMBER OF ROOMS PER HOUSEHOLD
OTTAWA AND HULL

Hotel Facilities

To accommodate the various classes of floating population within the Capital, comprised of Members of Parliament, officials from Provincial Governments and administration, diplomats and members of foreign missions, delegates from all parts of Canada and foreign countries to the great number of functions and conventions of all kinds, political, economic, scientific, etc., and for touristic purposes, Ottawa and Hull have an insufficient number of hotels. The approximate total available bed accommodation is 1,950.

Due to this lack of accommodation, a great number of rooms are rented in private houses, having limited comfort. Tourists have to use cabins in ribbon developments along highways outside of the cities, a most unsatisfactory remedy for deficient hotel capacity.

The increase of both official and touristic demands make this situation more pressing. Hotels of various types should be built in appropriate places in the centre and in the quieter sections of urban and suburban areas.

Present Zoning Conditions

Despite specific recommendations made within the Todd Report (1903), the Holt Report (1915) and the Cauchon Report (1923), comprehensive zoning has not yet been implemented in the City of Ottawa. Restrictive by-laws have been enacted sporadically and largely at the demands of property owners whose interests were, or already had been jeopardized.

By means of private deed restrictions, real-estate developers have long recognized the necessity for protection, but from lack of knowledge of the fundamentals involved, in many instances, only succeeded in perpetuating conditions which, in the ultimate, proved detrimental. On the other hand, such restrictive by-laws as have been enacted, while in some measure serving to ameliorate conditions, have had the effect of forcing the conditions against which protection was sought, into contiguous areas not restricted, although equally meriting such protection.

Throughout the area there is evidenced the effects of mushroom outgrowths, due to urgent needs, lack of previous planning and unrelated hasty subdivisions, with *no provision for the essential human needs of community life*. Any urban development is bound to degenerate if composed in the aggregate of successive groups of houses, in relation to which no space has been reserved for schools, churches, commercial centres, community halls, playgrounds and open spaces for rest and relaxation. Its inhabitants will necessarily have to seek elsewhere for these amenities, provide them through costly and wasteful displacements, or forego that concept of living to which these amenities are essentially the complements.

Within the various communities comprising the Capital Region, some have elaborate but inadequate local by-laws, in cases too rigid, while neighbouring townships or


CROWDED HOUSEHOLDS
1941
CITY OF OTTAWA


LOW RENTS
1941
SOURCE HOUSING ATLAS 1944
CITY OF OTTAWA
THE NATIONAL CAPITAL PLANNING SERVICE
LEGEND
20-29 PERCENT
30 PERCENT & OVER



RESULT OF IMPROPER ZONING

villages entirely lack any such provisions. In others, existing zoning by-laws are efficiently implemented, but are in large measure nullified by multiple amendments or are drafted without relation to the physical plan of the community. This lack of vital balance may be harmless in an isolated and newly established community, but in a group of neighbouring communities, it becomes detrimental to the whole if certain of the components are deficient in this respect.

A comprehensive zoning system, in which every by-law is carefully adapted to the character of each part of the developed area, prevents inadequate unification of the whole, and inhuman monotony of habitat.

Zoning must be flexible in its adaptations to the various classes of residential properties, in order to meet the needs and aspirations of various types of families. In doing so, the new community will not differ from the old village, from which inspiration can always be safely taken. There is a more urgent need for the fostering of community welfare in the town of the twentieth century, due to the complexities as well as the advantages which come with progress. A soul-less housing development, a mass of crowded tenement houses, may provide essential shelter, but lack the elements necessary for happy living. One of the merits of town planning is to protect mankind against this modern menace. The incidence of such wise policy on economics and social equilibrium is obvious.

LAND USES

An extensive study of the land uses included:

1. Land distribution, as to built-up areas for different purposes, street surface, open spaces, rural land, water, etc., for most of the municipalities of the region represented by comparative diagrams;

2. General land uses within urban areas, obtained by inspections and inquiries in each municipality and summarized for each city block;

3. Detailed land use plan, giving up-to-date use of every property lot.

The land use plans give not only the representation of the different activities, industrial or commercial, and the density of residential blocks, but also the present state of development of the grounds owned either by the Government, the municipalities, or public or semi-public institutions.

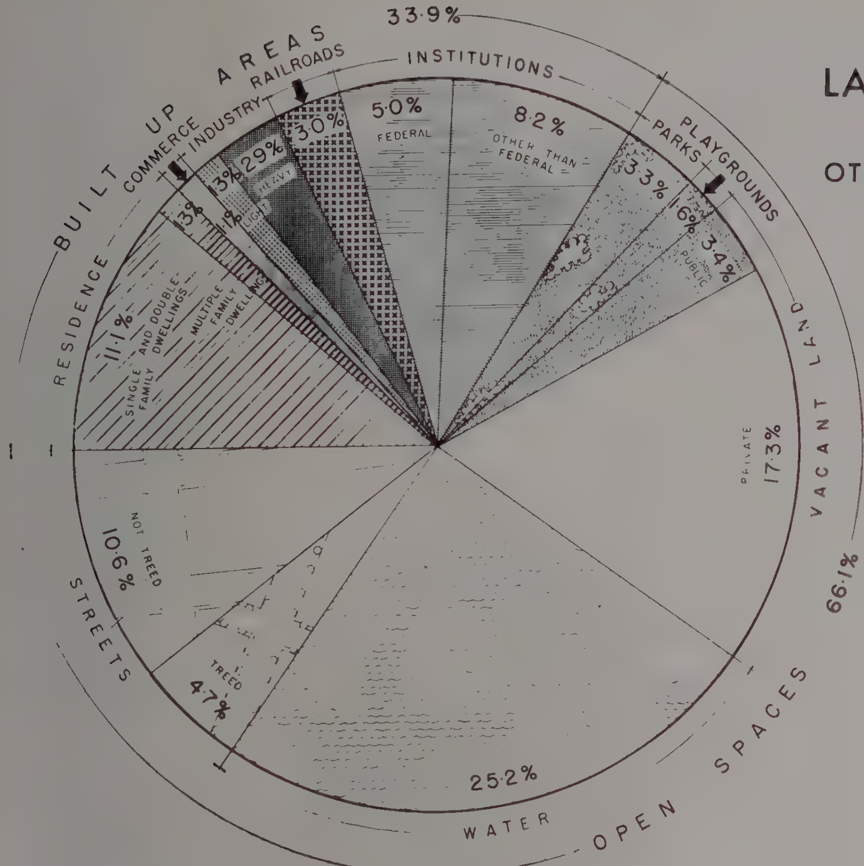
An important element of the land use plan is the survey of subdivisions existing, planned or proposed, and the present physical state of registered streets, in view of their eventual elimination, revision or co-ordination in conformity with the comprehensive project.

LAND USE DIAGRAM

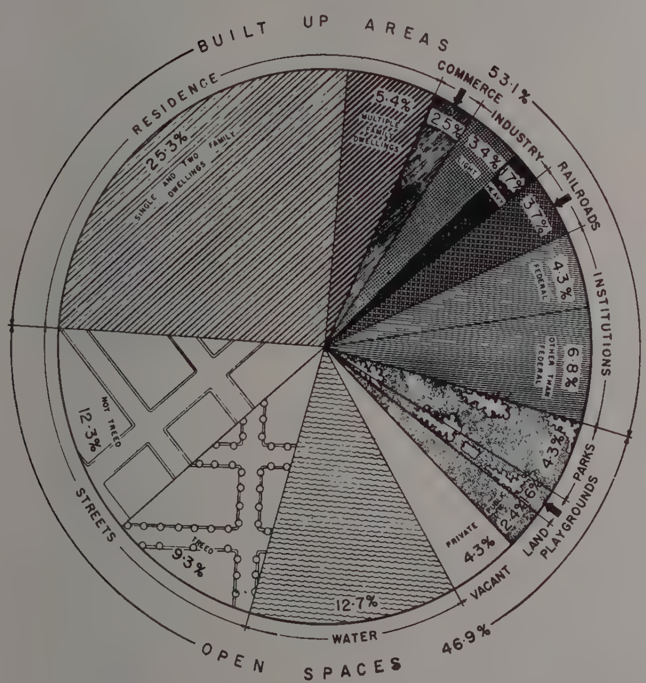
OF URBAN AREA WITHIN OTTAWA—HULL AND VICINITY

OPEN SPACES	
PARKS	833·5 ACRES
PLAYGROUNDS	394·2 —
VACANT PUBLIC	837·8 —
VACANT PRIVATE	4330·2 —
WATER	6027·3 —
STREETS	
TREED	1176·7 —
NOT TREED	2643·1 —
TOTAL	16,242·8 —
BUILT UP AREAS	
RESIDENCE	
SINGLE AND DOUBLE FAMILY DWELLINGS	2,786·7 ACRES
MULTIPLE FAMILY DWELLINGS	336·7 —
COMMERCE	277·8 —
INDUSTRY	
LIGHT	325·7 —
HEAVY	728·6 —
RAILROADS	743·2 —
INSTITUTIONS	
FEDERAL	1,256·6 —
OTHER THAN FEDERAL	2,052·8 —
TOTAL	8,508·1 —

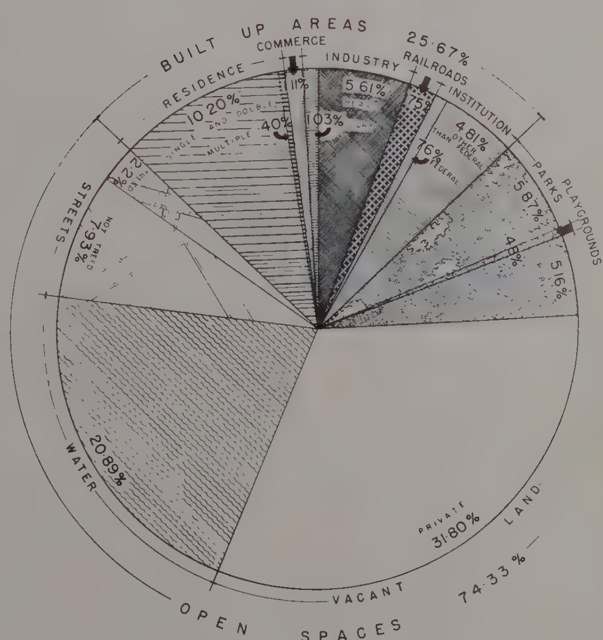
GRAND TOTAL — 24,750·9 ACRES

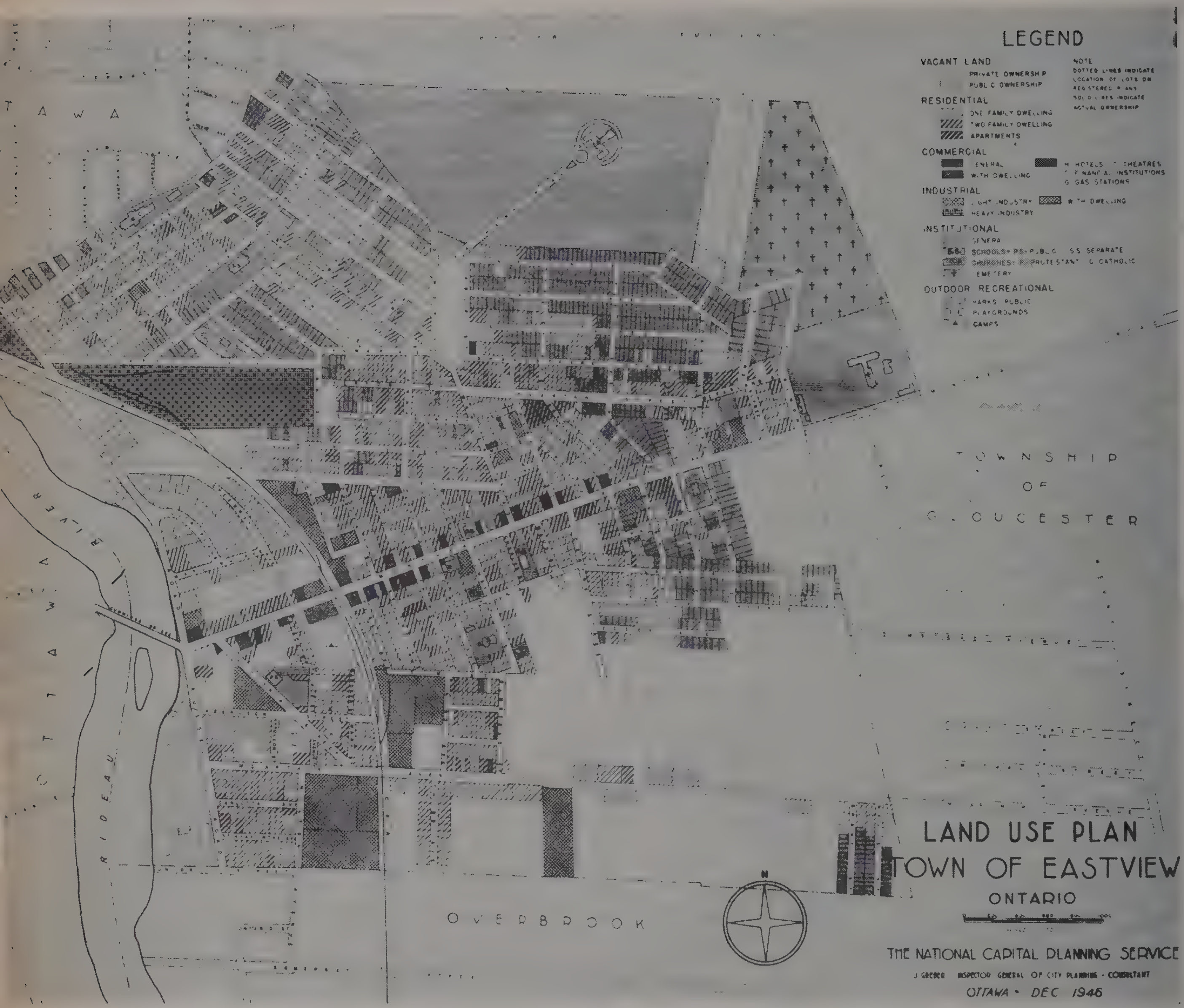


OTTAWA



HULL





EXAMPLE OF A LAND USE PLAN BY LOTS

Same survey has been made for all municipalities within the urban region.

LAND VALUES

A survey of land and property values is *an essential factor* in relation to existing conditions. It not only shows the real estate situation, but it gives a clear conception of increments and depreciations. It is the safest guide for sound and practical planning.

The best town planning project is bound to fail *if the financial possibilities* of its execution have been *overlooked.* Therefore, a careful study of land values and building values is essential, before any solution or proposal is elaborated. It is obvious that, if the basic plan of existing conditions from which the accurate vision of possible improvements may be obtained, contains the detailed representation of the present value of every part of the territory, the town planner will be able to *concentrate his proposals* on land of *low value,* and avoid utopian operations on parts of the city where high assessments already show little chance for substantial increase.

From this viewpoint, the land value plan of Ottawa and Hull is an excellent guide for the planner; its direct relation to the urgent problems to be solved is obvious: railroad situations, blighted areas, congested and unsanitary housing, are clearly incident to sections of the cities where the land values are comparatively low. Improvement of such sections is therefore made possible, and by fostering land revaluation, becomes a *profitable operation.*

In countries like France, England or Germany, by applying the principle of *excess-condemnation,* many improvements have rapidly repaid their costs. Similar operations carried out on land of high value would only have resulted in increase of municipal debts or taxes. Further, those countries have *town planning laws,* which in effect reduce the cost of expropriations by a more efficacious use of *zoning by-laws* than the present provincial legislations offer to local authorities. *The land value element has been taken as the commanding basis* for the study of most of the proposed operations.

TRAFFIC ON CONFEDERATION PLAZA AND RIDEAU STREET





REVISION OF RAILROAD FACILITIES IS THE KEY TO THE PLAN

TRAFFIC

The existing road and street systems within and without the urban area have been carefully analysed.

Present main provincial roads pass through congested outskirts, and become local commercial streets within the cities. The street system is based on the gridiron pattern, regardless of topography, traffic capacity, and functions of the streets, whether through traffic, commercial, retail shopping or residential. The widths, profiles, and crossings of streets, also parking facilities, have been overlooked. The pattern characteristics are largely those of *subdivision in blocks for building purposes*, rather than for circulation. Fortunately the average width is 66 and 60 feet; narrower streets are exceptional.

A great number of planted streets in the City of Ottawa may be cited as excellent examples of residential streets. They create an atmosphere of quietness and privacy, fresh and shady in summer and are most attractive in the spring and during the colourful autumn. Even during the long, snowy winter, they hold unforgettable charm.

At certain points of the road and street systems, congestion has gradually appeared. In 1947, 40,000 motor driven vehicles were registered in the Capital area and, during the touristic and sports season, summer and winter, large numbers of cars from various parts of Canada and the United States, increase the traffic and parking problems. One major cause of traffic congestion is due to the lack of specialization of the streets to their predominant functions, and to the use of local service streets as main thoroughfares, or vice versa. Wellington, Rideau and Bank streets are striking examples.

It has been proved that the rational systemization of the traffic facilities is a more efficient, more rapid and more economical remedy for congestion than the widening of existing congested streets.

TRANSPORTATION

As was clearly established by the Holt Report made in 1915, the steam railway transportation problem is *the key* to the solution of the comprehensive planning problem.

An extensive survey of existing conditions and of future needs has been made, and the conclusion now, as in 1915, is that the *radical remodelation* of railway facilities will be beneficial to the railway operation as well as to the development of industry, to the health, comfort and safety of the people of Ottawa and Hull, and finally to the revaluation of land in many parts of the urban area. Moreover, the elimination of the most objectionable railway lines within the centre of that area will provide, in the form of abandoned rights-of-way, all the land necessary for the gradual construction of a *co-ordinated system of main arteries*, so urgently needed to meet the growing traffic demand.

Public transportation by street cars and buses is seriously handicapped by the lack of adequate thoroughfares for the satisfactory routing of lines. A striking example of their abnormal concentration is Confederation Plaza, in Ottawa, where practically *all urban street car lines* converge and pass through.



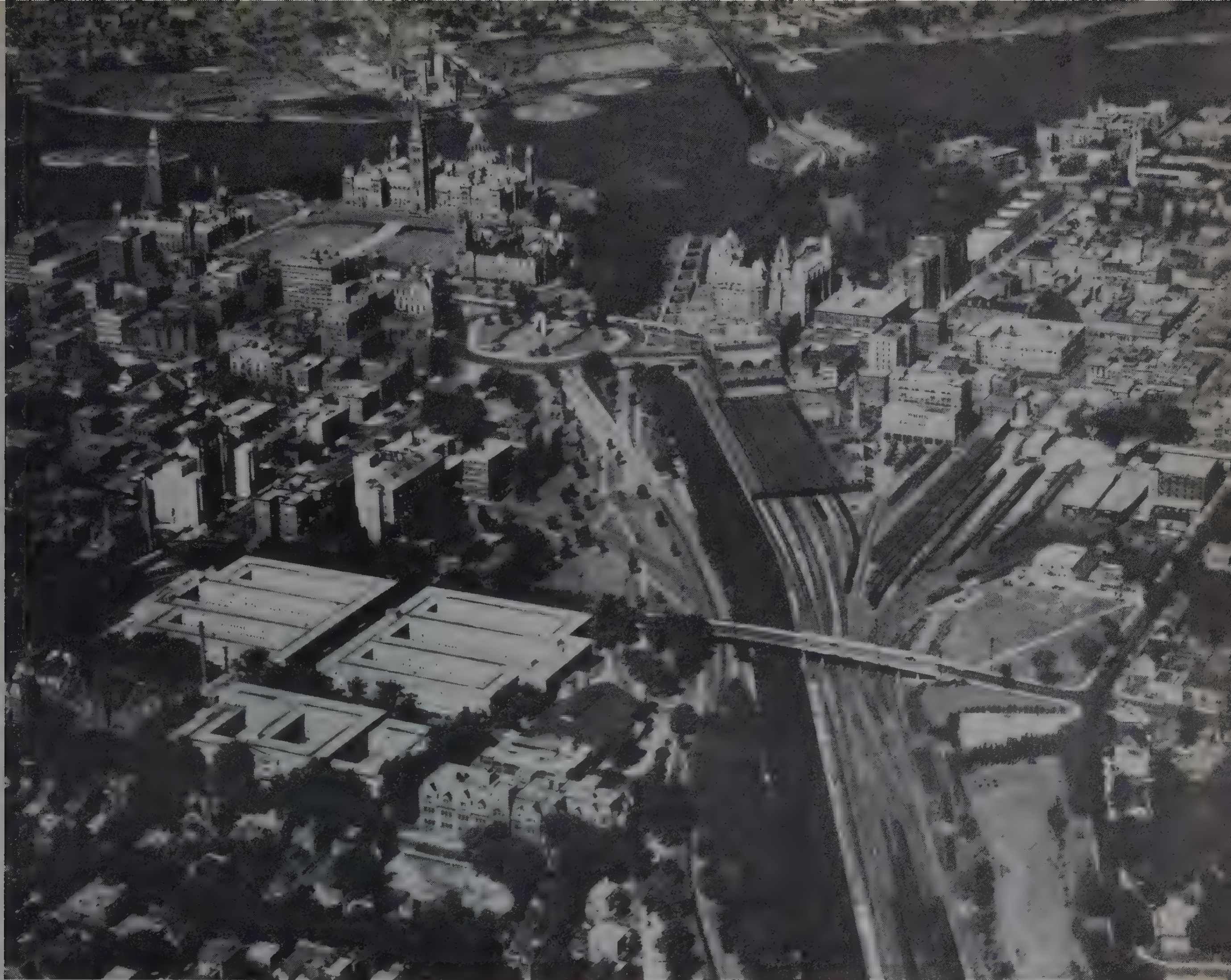
DISTRIBUTION OF STREET CARS AND BUSES

OTTAWA TRANSPORTATION COMMISSION

THE NATIONAL CAPITAL PLANNING SERVICE

J. GRÉBER — CONSULTANT

OTTAWA 1948



OTTAWA—CENTRAL AREA—EXISTING CONDITIONS

PUBLIC BUILDINGS AND SERVICES

Administration

Commensurate with the constantly increasing prestige of the Nation, the number of Government Departments is gradually increasing.

Further, additional needs for Government agencies during the war have resulted in the occupancy of all suitable vacant grounds in the Capital by temporary buildings, while many services are scattered in rented office spaces, in obsolete and inadequate quarters. The City of Ottawa has no City Hall, since the original building was destroyed by fire.

Education

The University of Ottawa, a Roman Catholic Institution founded in 1848, is rapidly growing, as well as Carleton College; both need extended accommodations.

Normal, collegiate, technical and high school accommodations are in instances inadequate, principally in respect to the ratio of land space per pupil, and will require to be supplemented by proper reservations for new establishments, in view of the foreseen urban extensions within the regional territory.

Educational principles differ in both provinces; public schools in Ontario are non-sectarian, and separate schools are Catholic, while in Quebec, public schools are Catholic, and non-sectarian schools accommodate the other denominations.

Religious Institutions

Religious worship is provided for by a large number of churches, corresponding in number to the needs of the different denominations.

Important religious institutions, largely Roman Catholic, exist in both Ontario and Quebec areas.

Hospitals

Hospital facilities, serving the urbanized region of Ottawa, Hull and vicinity, are definitely insufficient. Bed accommodations provided at date by the major institutions in the area number only 2,237, a relatively low figure for the population of 273,000 in the region. A program of additional modern hospitals and of extensions is fully justified

Cultural Institutions

Important extensions and developments are imperative.

The main Municipal Library, a Carnegie donation, with six local branches, and possessing a total of 204,000 books, is obviously inadequate for a Capital City.

There is no National Theatre: opera, music and dramatic performances are given in privately-owned theatres and cinemas, even in a sport arena, the "Auditorium", suitable for mass auditions, wrestling, hockey games, rodeos and pageants, with a capacity of 5,000, extensible to a maximum of 8,000. Lansdowne Park accommodations, initially intended for exhibitions, sports and conventions, offer temporary relief to this deficiency of theatrical and auditorial facilities.

The Victoria Museum contains large collections of natural history, mineralogy, prehistoric life, primitive art, and fine arts, (National Gallery). It is a large building, but outmoded, and inadequate for exhibit purposes, where valuable collections are stored under hazardous conditions.

Several community centres have been opened in schools in various parts of the urban area, but no comprehensive system of such facilities has yet been planned, despite the commendable efforts of various citizens' organizations.

The National Film Board, a Governmental agency within the Department of Reconstruction, has a national scope of education and culture, and needs adequate headquarters and operational facilities.

The Capital has no Zoological Garden and, apart from the flower gardens and arboretum of the Experimental Farm, no Botanical Garden. It has no Stadium suitable for national and international competitions.

Utilities

The comprehensive study of sanitation and water supply has been entrusted to experts on these matters who have worked in close co-operation with our service.

ESSENTIAL GOVERNMENT SERVICES ARE HOUSED IN TEMPORARY BUILDINGS





RIDEAU CANAL DRIVEWAY

OPEN SPACES

Sports — Physical Education

By reason of existing natural conditions within the Capital region, the system of open spaces, catering to sports, physical education, and recreation, is one of the main features of the plan.

Lansdowne Park Stadium, and the University Oval are sufficient for local needs, but a National Stadium is necessary. An overall system of playgrounds and facilities for physical education is urged, comprising existing facilities and proposed reservations rationally selected, on favourable grounds, for future needs. Golf, nautical sports, winter sports, camping, pedestrian trails must be included in such system.

The present acreage of public open space, especially in Ottawa, is a substantial beginning, but, despite the remarkable accomplishments of the Federal District Commission, the parkways of Ottawa, the contemplated improvements of the banks of the Rideau and Ottawa



WINTER SCENE—ROCKCLIFFE PARK

Rivers, and the gradual increase of Gatineau Park, the total acreage of open spaces in the Capital Region, according to the following table, is only 862 acres of urban parks. For the present urban population of 238,000, this only amounts to 3.62 acres per 1,000 persons.

Urban Parks

Ottawa Public Gardens:

	Acres	Acres
Rockcliffe Park	95.0	
Central Park (Clemow Ave.) and Patterson Creek	21.6	
Brewer Park (End of Bronson Ave.)	39.0	
Commissioner Park (Dow's Lake)	5.0	
Green Island Park (Mouth of Rideau R.)	9.9	
Nepean Point and Major's Hill Park	31.5	
McDonald Park (Charlotte St.)	8.0	
Anglesea Square (York St.)	3.0	
Strathcona Park (Range Road)	13.5	
St. Luke's Park (Frank St.)	1.5	
Minto Park (Elgin St.)	1.5	
Dundonald Park (Somerset St.)	2.0	
Plouffe Park (Preston St.)	4.0	
McNab Park (Gladstone Ave.)	3.0	
Reid Farm Park (Sherwood Drive)	6.0	
Ballyntine Park (Main St., Ottawa East)	1.0	
Carry forward:		245.5

	Acres	Acres
Carried:		245.5
Hull Public Gardens:		
Fontaine Park (Papineau St.)	4.0	
Sainte-Marie Park (Saint-Rédempteur St.)	1.5	
Larocque Park (Brodeur St.)	2.0	
St. John Park (Montcalm St.)	2.0	
Moussette Park (Val Tétreau)	17.0	
		26.5
Parks under the control of the F.D.C.		590.0
Total		862.0
Experimental Farm arboretum		61.0
Total of gardens and parks		923.0
Forest reservations (Gatineau Park, south of Kingsmere)		5,606.0
Total		6,529.0
Parkways (F.D.C. driveway system) 22 miles		
Physical Education		
Urban playgrounds		394.0
School playgrounds		145.0
		539.0



MEACH LAKE

RECREATION AND TOURISM

We need not demonstrate the importance of tourism in the present and future prosperity of the Capital Region. The success of tourism in such a wonderful setting is already an established fact. It only requires, for its full development, an *organized system of circuits*, road improvements and protective measures for recreational and touristic facilities throughout the region.

ST. PIERRE DE WAKEFIELD LAKE





PLANTED STREET

COMMERCIAL STREET



AESTHETICS

With regard to aesthetics, the balance of assets and deficiencies is extremely favourable: an harmonious blend of farmlands, forests and water, with the pleasing contrast of pastoral life and nonchalant rivers on the Ontario side, with the rugged hills, countless lakes, turbulent streams and colourful forests of Quebec.

The Gatineau River provides many beautiful vistas, many of which however are inaccessible to the public due to intervening private properties. The same difficulty exists within the present Gatineau Park, gradually and remarkably developed by the Federal District Commission. The charming Meach, Harrington and Philip Lakes are in general bordered by cottages which in many instances mar the scenery.

Lapeche Lake offers great possibilities, as also do McGregor and Saint-Pierre-de-Wakefield Lakes, but they are similarly endangered by uncontrolled private developments.

The central features of the scenery in the very centre of the Capital are the wooded cliffs of Parliament Hill, Nepean Point, and the Chaudiere Falls.

Across the river, facing the stately and romantic buildings of the Nation, are piles of unsightly industrial materials, factories, railway sidings, warehouses and chimney stacks, spreading soot, smell and smoke. The beauty of the Chaudiere Falls is hardly perceptible from portions of an antiquated bridge, and of roadways laboriously winding between factory walls. Such is the main approach from Hull to Ottawa!

Fortunately, Ottawa is a city of trees, elms and maples, which must be protected by appropriate regulations against ruthless and unwarranted destruction.

In commercial streets however, public utilities have encroached to such an extent that the street has become crowded to the limit by telephone, power, light and tram posts. Pedestrians walk under the shade of wires and transformers!

Outdoor stairs, fire escapes and incongruous commercial signs, on unbelievable heaps of forms and colours, such is the appearance of shopping streets within a stone's throw of the Parliament Buildings. The Capital is the first city which should initiate action to eliminate such undesirable incongruities.

Canada has long passed the colonial stage, the age of essential and vital aspirations. She has attained her maturity, and the stage of refinement, and having become conscious and proud of her natural assets, she is now ready to revise and improve the frame of life for her population. The problem is simple; *protection of natural beauty*, control of new structures, *no* artificial embellishment, *no* costly adornment, common sense and foresight will do better.

PREVIOUS TOWN PLANNING STUDIES

Our general survey would have been incomplete without a review of previous town planning studies of Ottawa and vicinity. In spite of considerable change in the requirements of the problem, they each had a strong bearing on our conclusions.

Todd Report

In 1903, the late Frederick Todd, a noted Canadian landscape architect, was engaged by the Ottawa Improvement Commission to outline a comprehensive scheme of park and parkway development for the city of Ottawa and its environs. Though the scope of his report did not go beyond beautification, Mr. Todd expressed strongly for the first time the necessity of collecting all data necessary to make a comprehensive plan. His outlook on the subject was broad and tended to evolve a general scheme rather than attempt to go into details.

It is a matter of regret that financial limitation, as well as the lack of a comprehensive plan, precluded the implementation of many desirable and important recommendations contained within the report, the execution of which was then possible but now has become more difficult. Particularly to be regretted is the failure to implement its recommendations relative to the control of industrial development, an undertaking which, if then initiated, would have minimized or avoided much of the undesirable development now existing.

The Todd recommendations which have been adopted, or can still be made the subjects of consideration, may be listed under the following headings:

Large Natural Parks or Reserves
Suburban Parks
Boulevards and Parkways
City Parks

Holt Report

A more extensive report was prepared in 1915 by the Federal Plan Commission (Holt Commission) appointed by the Federal Government and the cities of Ottawa and Hull.

The comprehensive recommendations contained within the report are dealt with in detail but special attention is drawn to the following features, i.e.:

1. That improvements in the area of the Capital at Ottawa and Hull should not be attempted without first establishing a Federal District and securing for the Federal authority some control of local government.
2. That the *pivot*, on which hinged *the success or failure* in carrying out any comprehensive plan, lay in *the proper solution of steam railway transportation*.
3. That the extension and development of Government Buildings should be carried out on a comprehensive plan.
4. That there should be proper control of residential and manufacturing districts by enforcing building restrictions.
5. That there be developed a broad and forceful policy of park lands.

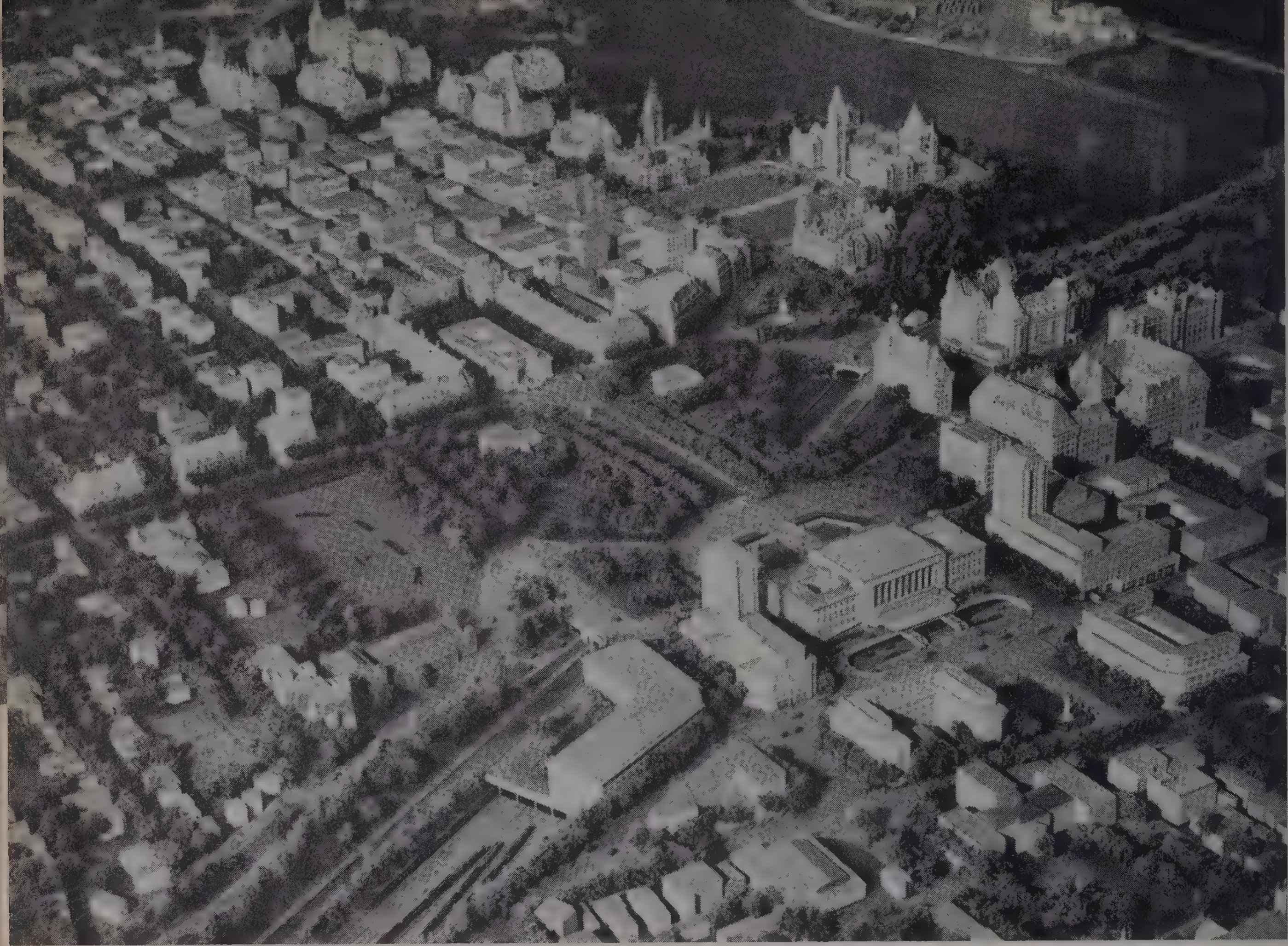
Already in 1915, the railway problem was the key to any improvement in the National Capital Region. It is still our problem, with aggravated dangers and difficulties, due to 34 additional years of uncontrolled development.

Cauchon Report

A further plan and report was prepared by the late Noulan Cauchon, planning consultant to the City of Ottawa until his death in 1935, and one of the best known of Canadian town planners. While this report was unofficial, in the sense that he was not retained by the Government to execute it, it comprises the co-ordination of extensive studies of the Capital area pursued by the author over a period of some fifteen years.

The Cauchon Report was formulated and released in April 1922. It suggested the creation of a Federal District on a basis which would overcome previous objections to such a project, by providing for the *control of physical features and public utilities* within Ottawa, Hull and their environs, *leaving all other provincial and municipal prerogatives undisturbed*.

The proposed reorganization of railway trackage and terminals was designed to eliminate unnecessary duplication of trackage, maintenance and operational expense, and included the elimination of all level crossings on running trackage — industrial spurs apart. The railway revision plan retained the present central station but provided through-traffic facilities by a tunnel paralleling Wellington Street and connecting with the existing Chaudiere trackage which, by the provision of a new crossing of the Ottawa River, provided the main and sole interprovincial railroad communication.



MODEL OF FIRST GRÉBER STUDIES—1938.

Besides the Mountain Park it was recommended that the Capital District be endowed with an extensive system of inner parks and parkways to assure health and amenity to the increasing population. The larger of such internal areas were to be determined on the principle that land which was too low or expensive for natural sewerage should be reclaimed for public use and land which was too high to reach by normal average city water service pressure should be withheld from settlement and diverted to public park use on the ground of economy in providing such services.

The Cauchon report embodied several recommendations, fundamental to the basic consideration of the planning of the Capital Area and which in large measure have fallen within the purview of the present report.

First Gréber Studies

The Federal Government retained my services during the years 1938 and 1939 as consultant for the development of government-owned grounds and for a local operation, of which detailed plans were prepared, but incompletely carried out owing to the declaration of war in September 1939.

The work extended from Nepean Point to and including the whole of Parliament Hill, and consisted of the layout of the landscape treatment of the grounds and approaches to the Government Buildings, of the Plaza, which had been previously assigned as the site for the War Memorial, and of the widening of Elgin Street. In order to study the relationship of such work to other parts of the city, a tentative plan of the City of Ottawa was submitted with a report, through which the advantages of a comprehensive plan of the Capital was pointed out, for the sake of *co-ordination and economy* in the carrying out of future local developments. This plan, due to lack of an extensive survey of existing conditions and future needs, was only indicative.

The plan for Confederation Plaza was carried out only insofar as the War Memorial terrace, which had to be completed for the Royal Visit in May 1939. The approach from the east, essential to improvement of traffic conditions at that congested point, could not be commenced owing to the outbreak of war; even the final grade of Elgin Street could not be executed. The completion of this work and of contiguous improvements is included in our present proposals.



PARK IMPROVEMENTS (1899-1946)
OTTAWA IMPROVEMENT COMMISSION—FEDERAL DISTRICT COMMISSION

THE FEDERAL DISTRICT COMMISSION

In 1893, Sir Wilfrid Laurier, Prime Minister of Canada, expressed a desire to see Ottawa become "the Washington of the North" and acknowledged the Federal Government's responsibilities in the beautification of the Capital City of Canada. Six years later the initial step towards the realization of this hope was taken in the setting up of the Ottawa Improvement Commission, which was to co-operate with the Corporation of the City of Ottawa in improving and beautifying the city.

In the carrying out of this Parliamentary mandate, the Ottawa Improvement Commission acquired and developed park areas and driveways along the Ottawa River and the Rideau Canal. In addition, it developed Monkland and Clemow Avenues to form links in the driveway system.

In 1927, the Ottawa Improvement Commission was reorganized and renamed the *Federal District Commission* by Act of Parliament, at which time authority was granted to extend its operations to the hitherto excluded Hull area.

Since its inception, the Federal District Commission has carried out park works of vast scope, such as the extension of the driveway system, the improvement of Dow's Lake, the construction in co-operation with the City of Ottawa of Confederation Place, the construction of the Champlain Bridges and their island parks, as well as the construction of Jacques-Cartier, Brébeuf and Flora Parks in Quebec. It initiated the acquisition and development of the Gatineau Park. The Commission also assumed responsibility for the maintenance of all Federal Government grounds.

The importance of the Federal District Commission to the welfare of the people of the urban area is indicated by the fact that the bulk of the parks owned by the cities of Ottawa and Hull are maintained by the Commission, a consequent relief to civic budgets.

In 1946, by amendments to the Federal District Commission Act, Parliament gave to the Commission authority to co-ordinate construction and development work on Government owned lands within the boundaries of the National Capital Region. It was also designated as the governmental agency responsible to Parliament for the preparation of plans for the National Capital. Thus, after forty-seven years, authority was vested in the Commission to make comprehensive study of and execute developments, with a view to improving the general welfare of the people, rather than to superficially embellish the urban area.

CONCLUSION OF THE GENERAL SURVEY

One word should sum up the conclusion of this survey: *Optimism*, highly justified by natural conditions, unspoiled spaces, unlimited forest reservations and an harmonious balance of urban, rural and industrial life — in other words, by a natural setting which offers great possibilities for corrective and extensive planning. Our confidence is equally justified by the energy of the inhabitants, who by their genius and courage, have, in less than a century, made the young Capital one of the most efficient, prosperous and admired cities in the world. Such conclusion is not a mere compliment; it is the result of two years of statistical research, surveys, inspections and topographical and social enquiries, which gave us a complete diagnosis, and, we dare say, a most favourable one, as basic and sure guidance for the preparation of plans and recommendations of practical value.

DESCRIPTION OF PROPOSALS

PART 2

SCOPE OF THE PROJECT

In the light of the basic data derived from investigations and surveys, we have conducted our planning work with the sole object of reaching conclusions suitable to present and estimated requirements, based on existing tendencies.

In fact, our task had a double scope:

First, to emphasize the fundamental function of the Capital, that is, to provide for its parliamentary, governmental, diplomatic, social and intellectual activities, within a frame of dignity, welcome and beauty, suitable not only to official guests, but also to innumerable conventions and delegations, and to great masses of tourists from all continents.

Second, to provide for the best possible conditions of development of an existing normal agglomeration of 250,000 inhabitants, which might double in quantity within a period of two generations.

It was, in this case, imperative to solve certain urgent problems inherent to the daily life of the cities, to plan for their future extension without upsetting the present built-up areas, to *correct without destroying*.

Therefore, we have avoided theoretical solutions, predicated, perhaps, on desirable ideals, but indifferent to the main factor of realization: *economics*. We have recommended only such feasible operations as have withstood full investigation as to their reasonable chances of being soon, or ultimately, implemented. This prudent principle does not preclude the fulfilment of far-reaching plans. It only requires the right appreciation of the *time element*, too often forgotten in town planning matters.

RAILWAY PROBLEM
Fundamental Element of the Plan

The *key* of the whole plan is the *railway problem*.

The sub-committee on railways, appointed at the beginning of our work, made extensive studies in collaboration with our service. Nine different solutions were investigated in common, and final approval was given to the most ambitious, which happened to be the most efficient. Its endorsement by the National Capital Planning Committee clearly demonstrates the value of this daring but urgent operation.

The remodelling of railway facilities has therefore become the framework of the master plan.

It consists of a series of gradual and co-ordinated operations, aimed at the elimination of all railroad interference in the present life and in the future development of the urban centre of the Capital Region and their relocation on a belt line. To attain this objective without disturbing or upsetting present railroad and industrial activities, without endangering the attainment of their methodical relocation by being subject to undesirable land speculations, the Government, according to the recommendations of the National Capital Planning Committee, and along the lines of the overall plan, has already decided upon the acquisition of the most needed grounds, while other parts of these grounds will be made available for industrial and railway purposes by municipal zoning.

Thus, the equipment for new railway and industrial facilities has been made possible, prior to any removal of existing railway lines or industrial establishments.

The main objectives are:

1. The creation of a belt line, connecting the north shore C.P.R. line from Montreal to Hull with all the lines approaching the city of Ottawa on the south, from Montreal (C.P.R. and C.N.R.), from the United States (N.Y. Central), from Prescott (C.P.R.), from Kingston (C.N.R.), from Toronto (C.N.R. and C.P.R.), and from North Bay (C.N.R.).

A bridge (railway and highway) will connect the north shore line at Templeton in Quebec, with the Ontario shore, west of Green Creek, over Duck Island. The new belt line will join and connect all existing lines at the Prescott line, south of Walkley Road. Inside of the new belt, all existing lines within the urban area will be gradually eliminated, i.e.:

Cross-town line (C.N.R.), Sussex line (C.P.R.), Prescott line (C.P.R.) between Nepean Bay and the new belt, Carleton Place line between Nepean Bay and intersection with C.N.R. North Bay line, C.P.R. and C.N.R. lines leading from Hurdman's Bridge to the present Union Station.

2. Reconstruction of the passenger station parallel to the new belt line, where the equipment for make-up yards, freight yards and industrial sidings will take place on grounds especially acquired or zoned for these purposes, three miles long and almost one mile wide.

The new central freight terminal would be located about one-half mile east from Hurdman's Bridge. Grounds are also acquired or zoned to accommodate the terminal, its yards, industries, warehouses, and workshops, extending for a length of about two miles and a half. The new passenger station will be about four and three-tenths miles from Confederation Plaza, but *connected to the various parts of the city by wide and direct boulevards,* so laid out that a *constant flow of traffic* can be maintained, with adequate surface connections and grade-separated crossings.

3. The new Station in Hull would comprise also a freight terminal, connected with the industrial area provided for on grounds specially acquired and zoned for that purpose. The railway lines on the Quebec side remain practically unchanged, except for the C.P.R. connection to the Interprovincial Bridge, and minor improvements to the Maniwaki and Waltham lines.

Such an extensive improvement of railway lines approaching the Capital has five major advantages:

1. *Simplification of railway operations,* particularly the handling of transcontinental trains, and the concentration of all operations at one point instead of long uneconomical movements of trains and engines as at present. Substantial saving of time, fuel and labour.

2. On the rights-of-way of abandoned lines, a coordinated *system of main arteries* would be established.

3. *Enhancement of land values* in all urban areas affected by this extensive operation. Most of the grounds now crossed by the railway lines to be eliminated, have resulting depressed land values, due to one hundred and fifty grade crossings, over ninety dead end streets, poor access and obsolete constructions. The elimination of those nuisances by the creation of modern thoroughfares, some of them of the parkway type, will result in a *considerable increase of land value,* large acreages of territory being made available for all classes of modern residential or commercial units, according to location.

4. *Heavy industries* are also given favourable opportunities for *progressive expansion* along appropriate and well equipped railroad facilities.

5. Another factor, perhaps the most important in the whole plan of railway revisions, is the possibility of its *gradual execution,* leaving existing railway operations unchanged while the new belt line is being constructed and the industrial sites equipped, the elimination of obsolete lines being made wherever opportune.

The whole work can be organized on a progressive schedule commensurate with the requirements of the railway companies and industrial establishments.

TRAFFIC

Road System

The proposed road system within and approaching the Capital, largely made possible by the utilization of railroad rights-of-way to be abandoned as a result of the revision of the railway lines within the urban area, comprises *interurban highways, main* and *secondary arteries,* and *parkways.*

Major improvements are contemplated for routes 8, 17, 15, 16 and 31, which would completely re-establish the relative functions of each, and relieve many local and commercial streets in Ottawa and Hull of interurban traffic, and permit the creation of appropriate entrances to these cities. The details of such vital operations are described at length in the Report.

The normal classification of the different thoroughfares as above indicated, will gradually eliminate existing congestion in the central parts of the cities, for the comfort both of road users and of the urban populations. Existing roads, now used as interurban arteries despite their picturesque and winding layouts, would then give full enjoyment and safety to tourists, while speedy *through* communications would use adequate new highways. Many parkways, or so-called driveways, are of great scenic value. Their systems will be augmented and completed, and will form the basic frame of gradual urban extensions to and within community and neighbourhood units.

All riverside roads, such as those paralleling the Gatineau and Rideau Rivers, by their locations and the scenic views they provide, have been indicated on our plans under the classification of parkways, as also have certain country roads. The legal value of such classification implies prohibition of the use of those roads by heavy commercial traffic, and the preservation of their characters as pleasure driveways. Most of them exist, and need little improvement.

Streets

Our proposals for the improvement of the street system are of three natures: widening, street opening and rerouting.

(a) Widening, only where absolutely essential and where property values are low. Thus, the increase of assessment values can be reasonably anticipated, and the operation made self-paying, especially if the procedure of excess-condemnation is made permissible under municipal by-laws.

An example of a profitable widening is that of a country road, which, through urban extension, will become a main street.

(b) Street opening — It is often easier and more economical to open a new street in the centre of a block than to widen built-up alignments.

There is often an opportunity for extension of an important thoroughfare to connect with another main artery.

Our plans show many examples of these two cases.

(c) *Rerouting* is the solution for most of the serious cases of traffic congestion. It is often practically *costless*, and gives far-reaching results.

For instance, the rerouting of all commercial traffic now crowding Wellington through Albert and Slater, used respectively as one-way streets, and the by-passing of Confederation Place by the new bridge over the Rideau Canal, provides an immediate and efficient remedy to the present congestion of the central part of the City. The removal of the cross-town line and the creation of the cross-town parkway is the rational rerouting of Route 17 across Ottawa. Also, when the Union Station is moved further south, the rerouting of the left turn northerly from Rideau Street to Sussex, by a right turn loop and underpass, will provide a constant traffic flow instead of the present bottleneck. Further, the rerouting of the Montreal Road to Hurdman's Bridge and the new driveway east of the Rideau Canal will make the eastern entrance to the City worthy of a Capital. Likewise, the south entrance boulevard will relieve traffic conditions on roads and streets essential for other definite functions.

Parking

The basic principle is to avoid the crowding of running traffic lanes by parking, by increasing the number of off-street parking areas, by building the greatest possible number of *covered* parking spaces through taking advantage of favourable topography, and by encouraging the construction of ramp garages at strategic locations. The latter are being gradually accepted by businessmen, who are willing to pay for the time saved and safety ensured.

Most of the new public buildings, and even large private commercial buildings should provide in their plans the necessary space for day and night parking and for loading. This was done in the case of the new Supreme Court Building and will be followed in the proposed Department of Veterans' Affairs Buildings.

The need for large parking provisions has been a factor in our choice of sites for all new public institutions, such as Government buildings, theatres, Convention Hall, Sports Centres, exhibition grounds, etc.

URBAN PLANNING

Delimitation of Urban Area

The master plan shows the delimitation of future built up areas sufficient to provide ample space for an ultimate total population of approximately 500,000. Outside of this delimitation, provision has been made for a controlled rural belt, the basic function of which is to protect the surrounding country against ribbon and other undesirable developments. Its use would, in general, be limited to agriculture and the establishment of large estates.

The provision of residential areas within the controlled rural belt has been based on the principle of nuclear distribution of neighbourhoods and communities. This method of social planning encourages the development of interest in community and parochial life. For the urban areas of the National Capital region, due consideration has been taken of local, social, economic and physical factors.

In the greater Ottawa area, the manifestations of urban blight, such as poor housing, crowding of families and poor maintenance, need betterment, but are not of a particularly severe nature. In the most congested portion of Ottawa, the density is not more than 60 persons per acre.

The master plan calls for a gradual readjustment of densities in the residential areas by reducing the density of central sections and slightly increasing the ratio of surrounding areas. To achieve this objective, good housing in controlled neighbourhoods should be provided prior to any readjustment, so that persons uprooted by these changes can find suitable homes. Moreover, when new public buildings are located outside the present built-up sections, dormitory areas for personnel should be made available.

Neighbourhoods and Communities

The social and economic welfare of new residential areas has been considered by the formation of neighbourhoods and communities. Typical units are neighbourhoods up to 7,000 persons, and communities up to 40,000. The shape and size of such social units within the proposed development areas have been clearly defined on the Neighbourhoods and Communities plan.

The neighbourhood unit is not only a physical entity defined by water, park, traffic arteries or railway, but is also a social and economic concept. It tends to discourage the exodus of its inhabitants by offering within its boundaries open space, unpolluted air, quietness, access to the countryside by pedestrian routes and in fact, all the advantages of good living that belong to the small town.

The community or group of neighbourhoods served by the same secondary schools, fire and police facilities, hospital and all the other appurtenances of a city, has, within its limits, playfields, parks, and areas designated for light industry. This last is of vital importance in order to prevent the unnecessary daily migration of workers to the metropolitan core.

Zoning Proposals

Zoning is that function of town planning which determines the relative disposition of structure to site, detailing uses, areas, heights, intervals and the occupancy of the ground, with a view to assuring adequate access of air and sunlight to buildings to the measure of their

Distribution of Population within Zones

Zone	Utilizable Area	Density	Population
I	3,030.85	40	121,236
II	5,043.84	32	161,402
III	7,767.70	25	194,192
IV	218.53	12	2,622
Acres	16,060.92	Total urban population	479,452
IV (ultimate)	8,213.93	12	97,966
Ultimate acreage	24,274.85	Ultimate population	577,428

occupational requirements, and ensuring health, efficiency and amenity to human beings. Its adoption in practice means the substitution of an economic, scientific, efficient community programme of community building, for wasteful, inefficient, haphazard growth, and ensures the provision of reason and equity in public regulations governing the use and development of public and private real estate.

Zoning regulations vary in different districts according to the determined permissible uses of the land.

Zoning is part of the city plan. It has direct relationship to the transportation system, including streets, highways, street railways, automobile traffic, etc. . . . also railroad services, both freight and traffic. Further, it relates to public works, utilities, parks, schools, and many special public and private undertakings.

Comprehensive zoning within the municipally organized areas of the National Capital Region is primarily the prerogative of the respective component municipal administrations, delegated through legislative authority of Provincial Governments. In the development of the area as a Capital Region, the provision of adequate zoning regulations will continue to be exercised through these *autonomous administrations,* but in so doing, due regard must be taken of their functional relationships within the region as a whole, in order that there may be maintained and fostered zoning standards which, while taking full cognizance of their respective needs, will in general be *equitable to the whole.*

Within built-up urban areas, these standards must necessarily be comprehensive and exacting, while in rural areas they will in large measure be drafted to offset developments which by their natures or dispositions might impair, detract from or destroy natural beauty or, from lack of prior consideration, preclude ultimate improvements.

Within the areas of ultimate urbanization, the communities, as set forth in the Master Plan, have not only been determined as physical units defined by existing or contemplated boundaries, such as streams, parkways, traffic arteries or railroads, to provide adequate social and economic entities, but with due regard to the designation therein, by zoning, of permissible land uses and occupancies, the relative dispositions of structures to sites, and population densities, in conformity with the basic requirements of each. Such regulation, by zoning, is imperative to the realization and perpetuation of the community concept, as otherwise its essential organization and the relative dispositions of its component parts become matters of haphazard, wasteful and disorderly development.

A major influence in the provision of this essential stability is *population density*, which, in varying degrees, has been made the basic controlling factor within the designated communities.

These relative population densities are controlled by limiting the percentage of land occupancy of residential building to clasified types, and by prescribing minimum permissible lot sizes, which in turn vary with the status of the respective communities.

Such limitations of lot sizes and permissible land occupancies are not standardized throughout the entire neighbourhood or community, but, on the contrary, are determined in keeping with housing types, whether single-family, semi-detached, or multiple dwellings, each of which are permissible within any neighbourhood or community, provided that the population density throughout the whole does not exceed the prescribed maximum.

Reference to the Master Plan shows the population density grade classifications of the respective communities in colours. Those of greatest density fringe the central area or are contiguous to industrial sections, and those of intermediate densities are dispersed throughout the outer areas, ultimating with the communities of least density within areas abutting upon the outer green belt or controlled rural areas.

Industrial areas, for the use of *heavy or noxious industries,* have been provided in locations which will *reduce to a minimum any nuisance* incident to their operations, and give them ample *facilities for expansion* and *easy access* to waterfronts, railroads and highways.

PUBLIC BUILDINGS AND SERVICES

Government Buildings

The plan of the Capital involves a vast programme of new permanent public buildings. Wellington Street is the focus of Government activities. It is not yet completed. The western part of the street, betwen St. Andrew's Church and Bronson Avenue, is a blight, an excellent opportunity for rehabilitation.

On the north side of Wellington, west of the Supreme Court, our plans provide for two new departmental buildings, similar in volume and silhouette, but not in detail, to the Justice Building. The grounds will be available for construction as soon as the present temporary government buildings can be vacated. On the south side, St. Andrew's Church, at Kent Street, is the extreme westerly existing monument to be preserved. The city blocks, between St. Andrew's Church and Bay Street, and between Wellington and Albert Streets, six blocks in all, should be reserved for a group of public buildings and annexes, which would form an appropriate and stately western end of Wellington.

As the first stage of this important realization, the two blocks facing Wellington at Lyon Street have been assigned to the Department of Veterans' Affairs.

Other sites are reserved at Tunney's Pasture, for the Bureau of Statistics and the National Film Board, and on Booth Street, Carling and Parkdale Avenues for other Governmental Departments.

The Printing Bureau, the excavations for which are now completed, will occupy a large site in Hull, on Sacred-Heart Boulevard.

These operations are for immediate realization. In the near future, the major problem of additional buildings will have to be approached on a large scale. For instance, the Department of National Defence, requires, in order to rehouse its numerous services, and the families of its some 15,000 employees, a space of about one square mile, outside of the central area. We have selected and recommended a site for this purpose, on the Base Line Road, in Nepean, at a short distance from the Airport. Contiguous to the grounds, will be a Community Centre, a park and railway facilities.

New Administrative Group

Following the essential principle of decentralization, and with the view of furthering gradual development of Government buildings in the most favourable parts of the territory, we are recommending the creation of a large group, on open ground, immediately south of the Rideau River, on the Bowesville Road, where, within a park, several (6 or possibly 8) new departmental buildings could easily be accommodated. The layout of this group would frame the new south entrance of the Capital, at the end of the vast boulevard, giving access to the city by much better and more direct arteries than the present Metcalfe and Prescott Roads.

This principal entrance to the Capital from the United States would have a most dignified setting, and we would strongly recommend this proposal for early consideration, if it is the Government's desire to avoid costly expropriations. This ground is now rural, free of constructions, and could probably be left untouched for a number of years, if it could be retained at its present value, by option or otherwise.

Department of National Research

For similar reasons, we propose the reservation of grounds for Government purposes south of the Montreal Road, particularly for the extension of the existing laboratories for the Department of National Research.

Education

The University of Ottawa can be enlarged to the south of its present property, and ultimately extend from Wilbrod to Somerset, where it would connect with the University Oval, and from King Edward to Nicholas and Waller. This long range plan would perpetuate the traditional location, without loss of important existing buildings, in a part of the city near the cultural centre.

For Carleton College a suitable and large area could be considered south of the Experimental Farm, by recuperation, for urban use, of parts of the experimental fields, along Fisher Avenue.

The general school problem is analysed in the General Survey. Locations for schools of various grades is a matter of local planning, commensurate with the future development of residential areas. Suitable sites will be easy to select, preferably in the reservations proposed for neighbourhood and community centres, and community green belts.

Religious Institutions

Similar comment is applicable to the local distribution of new churches, where the survey of existing conditions shows lack of proper accommodations, and where new community or neighbourhood centres will be established for future residential units.

Hospitals

In the regional plan, no definite location is proposed for additional hospitals. Their logical place is also within the reserve system of green belts, having due regard to ease of accessibility. The proposed site for the new Sacred-Heart Hospital at the intersection of Mountain and Mine Roads in Hull is in keeping with the above recommendations.

Cultural Institutions

The National Capital should have new buildings for a National Gallery, a National Library, a Convention Hall and a National Theatre, in addition to private cultural institutions such as theatres, cinemas and other recreational facilities.

The Victoria Museum is an outmoded structure, unsuited for a general museum and lacks adequate exhibi-



PROPOSED DEVELOPMENT OF THE WESTERN END OF PARLIAMENT HILL

tion rooms. Important collections are dangerously stored in it. The constantly growing art collections, particularly those which form the National Gallery, should be installed in a centrally located building where all the arts should find adequate possibilities for their expression to the best advantage, and for their efficient study. The plan of the building should be such as to permit of gradual extensions.

A large part of Cartier Square should be reserved for this purpose, with the building facing Laurier and Elgin Streets and erected in a garden suitable for outdoor sculptural or architectural displays; ample parking space would be provided at the rear of the building.

For the National Library, optional locations are proposed:

(a) The site of the Victoria Museum, after the rehousing of the collections of the National Gallery in a new building, and of the scientific exhibits in a Museum of Sciences possibly built in the Botanical and Zoological gardens south of the Experimental Farm.

(b) As a part of the renovation of Lower Town between Boteler and Sussex Streets, subsequent to the removal of the Sussex C.P.R. lines and of the corresponding warehouses.

The latter location half way between the Archives and the National Research Building, would form a scientific and educational centre in a park on Sussex Street, which will become a scenic parkway from Parliament Hill to Rideau Hall and Rockcliffe Park. The renovation of that part of Lower Town would provide enough space for the National Library and, eventually, for the Museum of Sciences, if preferred rather than the grounds of the future Zoological and Botanical Gardens.

Auditorium — Convention Hall

The Capital should have a large auditorium for mass meetings, conventions, musical entertainments and pageants.

The main auditorium should have a seating capacity of 10,000, and smaller auditoria and committee rooms with their needed accessories. The auditorium should have stage, radio and recording equipment, and should provide perfect sound amplification.

Such a building should be situated near the centre of the City and requires a large space, not only for the auditorium itself, but for its annexes or satellite accommodations: parking facilities, post office, hotels and commercial accommodations commensurate with its use.

To be self-supporting, the auditorium should have manifold functions, and therefore should be conveniently



MODEL OF CONFEDERATION PARK—PROJECT No. 1

located, preferably in the vicinity of the Government Buildings. The completion of Wellington Street west of St. Andrew's Church offers great possibilities for such development, which would include the renovation of the blighted space extending from Wellington Street to Albert Street, with Lyon Street as central axis.

Beside the large auditorium, a National Theatre, catering to musical art, opera, concerts, drama, comedy, lectures and public addresses to selected audiences, is a fundamental element of the Capital life.

The National Theatre should be of a limited capacity required for direct audition and excluding sound amplification. Its seating capacity should not exceed 2,000. It might well be connected directly with the National Gallery in order to be used for lectures on art and documentary projections, and, in that case, become a part of the general design of the National Gallery on Cartier Square.

It might, as an alternative and as presented on our models, be located on the block facing Elgin Street between Albert and Slater streets.

National Film Board

The National Film Board has also an important bearing on cultural development and requires a large space for its services, providing for constant extensions.

A preliminary plan for the permanent accommodations of the National Film Board had been prepared as part of the renovation plan of Lower Town between Boteler and Sussex Streets. Such project would have fulfilled its final requirements, but the space could be made available only through gradual operations extending over an unforeseeable period of years, during which the dangerous present conditions had to remain.

With a view to avoiding such slow realization, it is proposed to substitute as a site for the National Film Board a large part of the grounds of Tunney's Pasture on Parkdale Avenue. This area, acquired by the Government, will, in part, be developed as a riverside park by the Federal District Commission and is ample to contain, with the National Film Board, the permanent installations of the Bureau of Statistics, of the laboratories of the Department of Public Works, and possibly, in the immediate neighbourhood, housing developments for the employees of these various institutions.



MODEL OF CONFEDERATION PARK—PROJECT No. 2

New City Hall

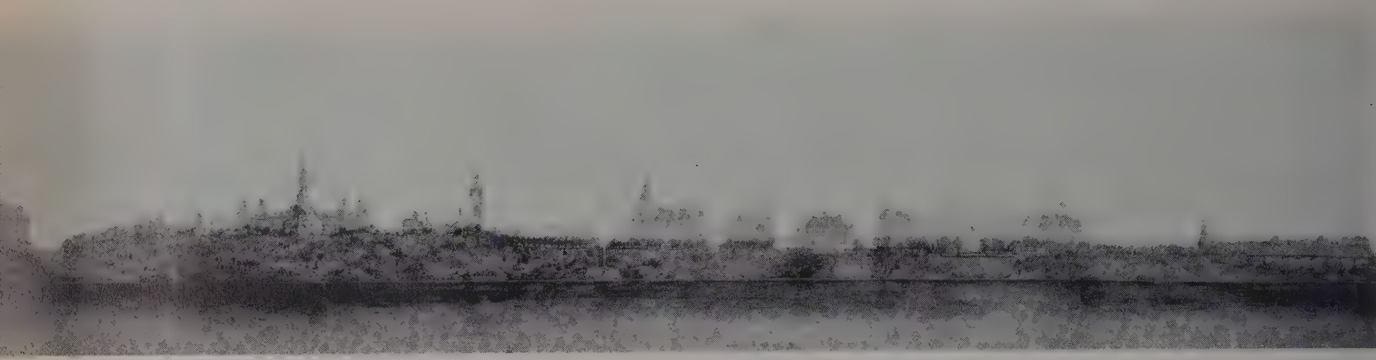
A Capital without a dignified City Hall is a paradox. The use of a large office building for municipal administration and services may perhaps be suitable in an industrial or commercial town, although we certainly doubt it, but in a city of stately government buildings and of many official receptions and ceremonies necessary to the functions of a capital, the City Hall must be adequately planned. A good location and harmonious proportions for a public building, instead of increasing its building cost, permit the attainment of a monumental appearance without spending unnecessarily on embellishments.

We therefore have contemplated in the ultimate development of the civic centre of the Capital (Confederation Park) the reservation of a large space for a new City Hall, which would make it the *central focus of the design* of this fundamental city improvement.

Several solutions have been considered: First, the new City Hall would be located east of the park to be created on both sides of the new urban bridge passing from Elgin to Waller Streets. (See Project No. 1, Page 430.) Such location has the advantage, besides that of aesthetical merits, of providing for *perfect connections and approaches* to the City Hall, and for *garage facilities* at the lower level, reachable from all sides.

The facade on Nicholas Street would be widely visible from Waller Street, with approaches at two levels, from a planted square. Plans and models have been prepared for this proposal. However, the gradual elimination of the railroad tracks and of the passenger station has to be taken into consideration. Consequently, the construction of the new City Hall is contemplated in several stages: First, the office accommodations on Nicholas Street, and later the completion of the reception rooms facing the future park, after removal of the railroad installations.

An alternate solution, amongst others, has been also considered, locating the new City Hall on Elgin Street in the block between Albert and Slater, immediately facing the new bridge at its western end. This site is of sufficient size and of easy approach, but it would not have the great merits of the first proposal.



SKYLINE OF PARLIAMENT HILL AFTER COMPLETION OF PROPOSALS

Exhibition Grounds

As a future eventuality, when the growth of the Capital will need larger accommodations for exhibitions than the present Lansdowne Park, we have proposed the reservation of a large site at the intersection of Walkley Road and the south entrance boulevard, with direct railroad connections for the handling of exhibits.

Utilities

Sanitation

The question of sanitary organization of the whole of the Ottawa urban area has been brought forward, and is now the subject of study by specialists appointed by the interested municipalities.

The study of the installation of sanitary equipment is co-ordinated in function with the master plan, and with the elements furnished by this plan, such as, densities of population, road system, dispositions of such elements as have direct influence on the design and location of these installations, i.e., industrial centres, government buildings, exhibition grounds, etc. Already a site has been provisionally suggested for the location of a sewage disposal plant in the neighbourhood of Green Creek, west of its junction with the Ottawa River. This proposed location in principle, has received the favourable consideration of the specialists, and study of the entire system initially has been made in keeping therewith, based on primary conclusions already deemed imperative.

Water Supply

The Ottawa Filtration Plant, augmented by storage reservoirs at strategic points, with the possibility of distribution by meters, could, if desired, supply a population of over one half million, which corresponds approximately with the ultimate limit of population foreseen in the Capital area.

If its administrative, financial and technical aspects can be reconciled, it would seem logical that this plant should serve the entire population on both sides of the river. If such unification of services is not favourably received, the Quebec region will require to be served by a separate filtration plant, the intake of which should be located as favourably as that of the Ottawa Filtration Plant, that is, central and from deep flowing waters.

Much study has been devoted to the possibility of securing the water supply for the Quebec side from some lake in the Gatineau mountains, but we question very much the advisability or necessity of so doing, when there is available at hand a large natural and suitable source of water in the Ottawa River.

PUBLIC TRANSPORTATION

Street Cars and Buses

In order to combat and alleviate the increasing traffic congestion in central areas of the City, certain existing street car routes obviously must be *rerouted* and, in instances, eliminated, their *replacement by bus lines* being particularly recommended where routes traverse narrow thoroughfares accommodating heavy general traffic. Under such conditions street cars follow *fixed traffic lanes* and are the major factors contributing to the slow movement and congestion of traffic; the substitution of buses will release such formerly fixed traffic lanes, and provide, therefore, two running lanes into which buses can be assimilated in common with general vehicular traffic. This is particularly essential within the areas of Sparks and Queen Streets east of Bank, Confederation Place, and Rideau Street west of Dalhousie Street. Without exception the routings of all street cars traverse these areas, in whole or in part, and there is no alternative. Such a condition obviously is not only detrimental to the provision of efficient service, but is likewise detrimental to the normal movement of general traffic, and is particularly indicative of poor operational procedure in cases of emergency, such as conflagrations in the Sparks, Queen and Rideau Street areas, or on the occasions of ceremonials on Confederation Place, at the Union Station or on Parliament Hill, and incidental to which street car traffic, lacking alternative routing, is entirely suspended.

On the other hand, there are sections within the urbanized area which are inadequately served, and for which provision must be made.



HOG'S BACK, A PICTURESQUE FEATURE IN THE PROPOSED INNER PARK SYSTEM

It is within our knowledge that the Ottawa Transportation Commission has engaged expert authority to studying the system. It is obvious that *future policy* should be determined *with due regard to the provisions of the Master Plan,* in which are delineated future communities, industrial areas, institutional and governmental grounds, and especially a *new arterial system,* all factors having direct bearing upon ultimate transportation facilities. The utilization of future through arteries made available through improvement of existing main roads, and their connections with new arteries made possible by the abandonment of railroad rights-of-way, particularly typify such provisions, the natures of which are vital factors in the predication of future transportation services.

In the gradual development of the Capital area, innumerable demands will be made, as opportunity presents for the implementation of certain phases of the Master Plan, for the adjustment of the public transportation system to new conditions. For this reason the gradual abandonment of fixed-tracked vehicles and the substitution of buses is recommended in view of the flexibility and adaptability of the latter to meet new conditions.

OPEN SPACES

Sports — Physical Education

Physical education is essentially recreative, although it is the necessary complement of intellectual education.

National Stadium

Notwithstanding the primary necessity of developing an extensive system of sports and recreational centres, distributed throughout the whole urban area in keeping with the nuclear grouping of communities and neighbourhoods, for the daily training of youth and the maintenance of adult fitness, the Capital must have a National Stadium, with comprehensive sports facilities, including indoor gymnasium, competition swimming pool and training grounds.

South of Dow's Lake, a large open ground of about 160 acres, accessible from four sides, through driveways, existing and proposed, surrounded by attractive scenery, contiguous to the Experimental Farm, free from smoke pollution, lends itself for development as a large sports centre, with adequate parking spaces. The low ground can be easily improved by proper fills.

Sport Centres

Other local sports centres to serve the new communities should be provided in the territories of Ottawa, Eastview, Gloucester and Nepean, and similar centres should



be erected on the Quebec side, in Hull, Pointe-Gatineau and Aylmer, to complete the system of sports centres within the Capital Region.

Playgrounds

Playgrounds for school children are really part of the school system. The ideal solution is to build the *school in the playground*, or, at least, to have the playground contiguous to the school. All proposed new playgrounds serving neighbourhoods comprising community units and surrounding community centres, should be designed for this purpose, and additional playgrounds to be created for existing schools ought to be established on grounds continuous or close to the schools.

Ample reservation of grounds, *unsuited for housing* or *agricultural development*, will form a *continuous system* of open spaces and green belts, as a frame of green to the various community units.

Open Spaces

Comparison of the plans of existing and proposed open spaces shows that the proposed system is the *logical extension* of the existing park and parkway belt, so well designed by the Federal District Commission, and of the development of Gatineau Park and the park system of the Hull region. It is obvious that what has been developed along the Rideau Canal and Dow's Lake, can be repeated on the banks of Brewery Creek and around Fairy Lake, and that the future park, which in the ultimate development of Hull will face Parliament Hill from Cartier Park to the Chaudière Falls, can be based on the same principle as the present cliff-side parkway from Nepean Point to Rockcliffe Park and MacKay Lake.

River Banks

The Ottawa River deserves a riverside drive, from Britannia to Chaudière Falls. The Federal District Commission has already started to secure the right-of-way in



PROPOSED DEVELOPMENT OF NATURAL PARKS ON THE BANKS OF THE OTTAWA RIVER

anticipation of its construction which in addition to the elimination of the Carleton Place railroad line, will achieve the revaluation of all properties now depreciated by railway nuisances, numerous grade crossings and poor access.

On the opposite side of the river, from Hull to Aylmer, a similar but more simple treatment will be followed on certain parts of the river front, connecting Val-Tétreau, several golf courses, Wychwood and Aylmer, as far as the Cedars. The right-of-way of the abandoned Hull electric line also will be used for the construction of a new driveway.

East of Hull, the Ottawa River has low banks, unsuited for use other than as planted spaces, which we propose to reserve between Brewery Creek and the Gatineau River; between Pointe-Gatineau and the western end of Kettle Island, the land should be reserved for a natural park, which will provide the foreground of the imposing view from Rockcliffe toward the Laurentian Hills.

The Rideau River, from Black Rapids to Rideau Falls, offers naturalistic scenery which could be preserved as park-like river banks, both by partial acquisition for parks and recreation grounds, and by appropriate zoning regulations for the balance of the grounds. This would permit, at certain chosen points, the construction of residential developments of limited density to retain the views.

Urban Parks

The region of Hull has such great possibilities with the wooded hills and the countless lakes of the Gatineau, that it does not call for a systemized park system. The only major area easy of improvement is within *Fairy Lake Park,* which, by its natural shape, forms a continuous wedge of green from the edge of the Gatineau forest and "mountain" down to the Aylmer Road. The most effective improvement will be the *central park at the Chaudière Falls.* The time will come when the heavy and obnoxious industries, now occupying the islands, peninsula and the rocks from which the falls originally receded, will finally move to more appropriate sites, for their normal development, and more economical operation.

The master plan is a long range programme, upon which the Capital will grow, and the Falls will always remain *the main feature of Ottawa's natural setting.*

The new Chaudière bridge will join Ottawa and Hull *across* a park, providing from both sides views of the river and of the falls, instead of being an *unattractive service road* lined by unsightly structures, smoke stacks, pipes and wires. The power plants will remain in planted settings; they are a functional element of the falls and can be treated in keeping with the scenery.

The elimination of the Interprovincial Bridge, and its replacement by a more architectural structure behind Nepean Point, will permit of the replacement of the railroad track by a terrace exposed to the west and giving a full perspective view of the large and picturesque basin formed by the river between the Chaudière Park and Nepean Point, a scene dominated by the romantic silhouette of the Parliament Buildings, and of which all Canadians can be proud.

Experimental Farm

The Experimental Farm, now in the centre of the city, with its arboretum, greenhouses and educational nurseries, is an element of beauty and of public pride. Its driveways are part of the Capital's parkway system. It must remain unchanged and maintained in its scientific and educational function. However, large fields belonging to the Farm, south of the main establishment, could be easily exchanged with other lands of equal agricultural quality and larger if necessary, and located outside of the urban area, on the green belt, or the Bowesville Road, for example.

Botanical and Zoological Gardens

This would permit the development, in connection with the Farm, of a Botanical Garden, south of the Arboretum, and possibly also of a Zoological Garden, partly on the Farm property and partly on the picturesque ground between the Rideau Canal and the river, including the beautiful rocks and waterfalls at Hog's Back. The conjunction of the stadium, the Farm, the botanical and the zoological gardens, facing, on the south, the Government Park, where six or eight new departmental public buildings might be erected around the star-shaped south entrance to the city, would be on a monumental scale, worthy of a Capital.

Park Reservations

If the province of Quebec has been favoured by the natural setting of the Laurentian Hills, forests and lakes, the province of Ontario offers other opportunities for natural scenic parks, for which no expenditure need be contemplated. A single reservation, including the Rideau Lakes group and the Mississippi river and Lakes form part of an incomparable touristic circuit.

At a much shorter distance, two creeks, situated within the green belt, lend themselves to the enjoyment of the outdoors. Green Creek, on the east, 4 miles from Cumming's Bridge on the Montreal Road, and Black Rapids Creek, 4½ miles from Dow's Lake on the Prince of Wales Highway, are proposed as future reservations. Both are of easy access from the future residential areas of the eastern and southern extensions of the city, which will develop near the new industrial areas, in Gloucester. Their topography and their natural landscaping need no artificial embellishments. All that is required is a zoning ordinance providing for their preservation, with the view of providing additional facilities for camping, picnicking, playgrounds, and rest, for thousands of workers.

ULTIMATE OPEN SPACE SYSTEM OF THE NATIONAL CAPITAL AREA

Urban Area

(Existing and proposed open spaces included)

	Ontario area acres	Quebec area acres	Total
Public Gardens	312	82	394
Urban Parks*	1,398	693	2,091
Natural Parks*	2,932	1,361	3,793
Sports Centres*	979	1,723	2,702
Community Centres*	881	417	1,298
Total	6,502	4,276	10,278

Forest Reserves outside the urban area are not included in the above table and amount to 10,170 acres, of which 4,660 acres are in Ontario and 5,510 in Quebec. That area of Gatineau Park south of Kingsmere has been included.

*Playgrounds are included in these items. Parkways — 93 miles.

RECREATION AND TOURISM

The proposals on this subject are an easy problem, for four reasons:

1. Natural assets have not yet been spoiled;
2. The excellent work already achieved by the Federal District Commission only needs further developments, inspired, on a larger scale, from what already has been accomplished;
3. Our essential recommendations relative to the enhancement and the appropriate treatment of what we might call "The National playground of Canada" involve *no artificial embellishment*, very little additional expenditure, but certainly calls for *serious protective measures*. By their nature, such measures pertain to matters of aesthetics;
4. The numerous desirable circuits to organize in view of making the whole Capital region available to all Canadians, weekenders and tourists are in great majority, existing roads, easy to improve in certain sections, and to equip for convenient touristic use.

There are unlimited resources for the enjoyment of short and long range outings and touristic opportunities. But the road system has not yet been sufficiently developed to give access to a great number of charming valleys, lakes, and wooded sites, where every form of recreation or sport can be provided. Also many points, at different elevations, can be reached to permit of the enjoyment of picturesque or grandiose views.

Those possibilities will be gradually made realities, as and when appropriate work is carried out to improve the means of approach. There is however no need of a complex and expensive road development, as many parts will better retain their charm and beauty, *if left wild* and accessible only by trails or pedestrian paths, with proper camping and picnic accommodations.

In such an attractive country, the example of the rules applied in Switzerland is of great value. The deliberate restriction of automobile traffic, limited to main approaches, and the systemization of reserved forest sections, provide the necessary calm, intimacy, and silence which are efficient factors of regeneration for the tired townsman, of re-education of the masses, and of healthy and restful recreation.

If planned along such principles, the development of tourism in the Ottawa region will be a sure, lasting and most profitable investment.

AESTHETICS

It is often considered that the greatest drawback attached to beauty, is that of being costly when it is the result of man's effort. This is an erroneous opinion, because, in many instances, it is a saving, and in other instances it may even be an *investment*. It is a *saving* when beauty is secured by *preservation*. It is an investment when the resulting composition proves to be such



LAPÊCHE LAKE WITH ITS SANDY BEACHES HAS GREAT POSSIBILITIES FOR RECREATION AND TOURISM

as to *attract great numbers of people,* and thus add to the important economic industry of tourism, not to speak of its value as a factor in the social welfare of the inhabitants.

There are two ways of implementing aesthetic control, both of which are often complementary. First, by *planning and creation,* and second, *by regulation,* either *constructive or restrictive*.

From the social point of view, aesthetics as a factor in urban life have direct, positive and constructive reactions. They foster the growth of civic spirit, and provide incentive for citizens to become conscious and proud of their environment, and, consequently, to be better disposed to co-operate in the improvement and preservation of that environment. It cannot be denied that beauty, from the moral point of view, has also a beneficial influence.

Preservation and enhancement of scenery —

The setting of the National Capital Region, and particularly its Gatineau mountains, forests, lakes and rivers, is an invaluable natural asset, the future development of which needs to be judiciously guided and controlled, rather than to be improved upon.

Preservation of the character of the land is the watchword for the aesthetic control to be enforced. This character, which is mainly that of charm, harmony and softness, should be respected and maintained *at a human scale* when any construction is considered; the beauty of a lake, or of a wooded hill, particularly if of moderate size, would be depreciated by a large and bulky hotel, by a conspicuous parking ground.

Parkways should be limited in width, and should not be required to provide the facilities of traffic highways. If and when planted, it should be in the least formal way possible. Speed is not required in an environment of rest and enjoyment, and it should be limited, not only by regulations, but by the nature of the parkways themselves. Their locations and layouts should be studied in such a way that they will not only take advantage of the topography of the ground, but will secure fine outlooks and variety of aspects; the objective is not to provide the shortest distance from one point to the other. In Rockcliffe Park there are excellent examples of parkways which invite relaxation.

Parking areas should not mar the scenery by obvious intrusions of size or unsightliness. They should be adapted to the topography not only for reasons of economy, but with the view of making them *less conspicuous*. Trees and shrubs should be preserved, not only around, but within parking areas.

Similar recommendations hold good for picnic places. All elements to be incorporated in promenade systems should also be carefully designed. In this regard, the Federal District Commission has disposed at strategic points harmonious and inconspicuous signs, which are good examples. The Blue Ridge Mountain Park development in Virginia offers excellent examples of shelters, signs, benches, fences, for a park of this nature.

There are on the Ottawa River, and along certain lakes in the region, fine sand beaches. They are few in number, and if only for this reason, it should be recognized that their development for public use is liable to be fraught with difficulties. The evils of uncontrolled public beaches, with intricate traffic conditions, desolate and treeless parking areas, countless sign boards and refreshment stands, are bound to disappear through the enforcement of proper controls.

Places reserved for recreation and tourist accommodations should be the subjects of special architectural treatment. Hotels, cabins, gas stations, etc., should be, through their design, colours and materials, elements of attraction and enhancement instead of blots on the scenery as is often the case.

The Parliament Buildings and Parliament Hill are, in the public mind, the symbols of the Capital. The Peace Tower, which crowns the whole composition, has the same meaning to Canadians that the dome of the Capitol in Washington has to Americans, or Big Ben to English people.

There can never be too much care exercised in the preservation of vistas opening on Parliament Hill. The design of main roads incorporated in the Master Plan takes into consideration the necessity of providing or protecting such vistas in their multiple aspects and characters.

This is particularly evident in the case of the proposed boulevard leading from Hurdman's Bridge to Confederation Place, which provides an impressive perspective of the Parliament Buildings from an oblique angle quite in keeping with the dynamic and picturesque character of those landmarks of Victorian gothic. We had, in fact, made studies for a formal and direct view of the Peace Tower by widening Metcalfe Street, but apart from the difficulties of such a costly operation, we discarded it for aesthetic as well as functional reasons.

This is also evident in the case of the proposed parkway leading to Kingsmere on the heights of the Gatineau hills, which, nearing Ottawa, follows the ridge, west of Fairy Lake, to Boucherville Road, from where the view of the river front of Ottawa is most impressive.

Another view to which special treatment should be given is that of Parliament Hill from St. Joseph Boulevard, by reserving planted vistas and limiting building heights in certain areas to preserve to full advantage, the panorama.

From the heights of City View, south of the city, another panoramic view can be easily preserved by appropriate regulations.

Most important is the treatment of Laurier Avenue in Hull, which offers direct and close views of the whole silhouette of Ottawa. The land between the Avenue and the Ottawa River should be gradually freed from industrial encroachments and transformed into a riverside park.

Also, the restoration to their primitive beauty and wildness of Nepean Point and the Chaudiere Falls and Islands, is perhaps the theme that will best demonstrate the value of aesthetics, in the heart of the Capital.

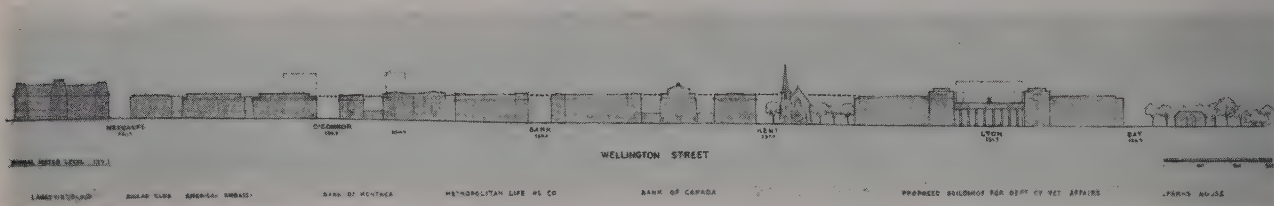
We should mention, as a major feature in the design of the central area of the Capital, the "Confederation Park", or "Commons", to be developed on either side of the proposed bridge over the Rideau Canal, between Elgin and Waller Streets, which will be framed by public buildings on its four sides. By its proportions, not by elaborate embellishments, it will be a monumental composition.

Architectural Discipline and Control

Discipline, order and control are the vital principles of spatial harmony. They do not mean monotony. Wellington Street, the "Constitution Avenue" of Ottawa has a specific function, which should be enhanced by a defined character, essentially dissymmetrical: the north side of the street is a park, from which Government and Parliament Buildings, with their romantic towers, steep roofs



PROPOSED ARCHITECTURAL DISCIPLINE ON WELLINGTON STREET



and pinnacles, dominate the river escarpment. The south side is a continuous line of buildings (governmental, embassies, banks, insurances), which throughout have a fairly regular cornice line, forming an impressive and harmonious contrast with the broken skyline of the buildings on the north side of the street. This principle will be maintained for all new buildings, especially for the westerly part of Wellington where a large architectural ensemble is proposed.

Likewise, future buildings (or additions), on the north side of Sparks Street, should be limited to the same height as the adjoining buildings on the south side of Wellington, with the view of preventing the unsightly appearance of the rears of commercial buildings as seen from Wellington or from Parliament Hill.

Elgin Street will also be subject to co-ordinated cornice heights, as well as Sussex Street, and Laurier Avenue in Hull.

Equipment of Public Utilities

One of the major problems in the improvement of streets and public squares is the outside equipment of public utilities, mainly telephone and power transmission posts and wires, with their multiple accessories; tramway wires, lighting standards, etc.

Strict regulations are essential to control the location and design of those outdoor elements. The compulsory disposition underground of certain elements, especially in particular areas, is desirable. Such areas are streets requiring special treatment, and commercial, semi-commercial and institutional areas, in which there are lacking set-backs to the buildings, and space to conceal the equipment required to service their frontage.

Existing streets should be designated, with the view of proceeding, not only with the control of any new installations, but with the actual removal underground of existing service lines. Where and when outdoor poles and lines cannot be avoided, they should be located at the rear of the lots, as is done in many cities.

We trust that all tramway lines will ultimately disappear from the urban scene, as is the case in most modern cities. The use of trolley buses for public transportation has many supporters because of certain economic advantages, but they *perpetuate overhead wires,* which, in turn, *definitely fix their routings.*

Highway signs indicating directions, numbers, and crossings have been greatly improved in recent years, but local signs, light poles, traffic islands and such like, often display deplorable lack of study, both in form and colour.

Gas filling stations and their equipment must be strictly regulated.

Projections of building elements over and above the street line should be prohibited, such as show windows, marquees, fire escapes, and outdoor stairs, which are the cause of disorderly appearance.

Outdoor Publicity

The uncontrolled intrusion of outdoor publicity in the form of posters, bill boards, neon signs and such like, within environments to which they obviously do not belong, amounts in substance to the abuse of public rights by private interest.

Despite common recognition of the detriments attached to such practices, apathy on the part of the public generally, and reluctance on the part of municipal administrations, coupled with opposition by those whose interests would be directly affected, in large measure account for failure to initiate and enforce control and regulation of commercial publicity.

Only when organized and controlled on a basis of equity, can outdoor advertising be pursued, if the best interests of the public are to be fostered and preserved. Under such conditions, advertising can fulfill its primary function, and even *enhance* certain environments.

Within the National Capital Region, where the preservation of an atmosphere of dignity, stateliness and natural beauty is imperative, every possible protection against the intrusion of all extraneous and detrimental influences must be afforded. Such protection is a condition essential to the full effectiveness of future planning development.

Some general considerations should be observed in the design and location of publicity elements: when they are on a building, they should be composed as a part of, or in keeping with the architecture of the building; in some instances, colour harmony might be admissible, especially in the case of neon signs, for the whole or a part of a commercial centre or street.

Trees

Trees are a definite factor in the enhancement of a modern city. They are the framework of buildings, the "leit-motif" in street design, the aspect of which they may change entirely. They are not intended to hide architecture, they are part of it. They blend unrelated or contrasting structures, and their removal from certain areas would be deplorable. In many instances, they give charm to a modest house, which, otherwise, would be bare and desolate.

Through lack of planning, commercial streets are deprived of such environments, and, consequently, trees are considered to be incompatible with the functions of commercial areas. On the contrary nothing more than trees enhances commercial frontages, which, unless strictly controlled, cannot but express disorderly and chaotic aspects, by reason of their unrelated components and publicity elements.

Trees should not be limited solely to residential areas, parks and parkways. They should be specially integrated in the design of commercial and *industrial centres.* We see no valid reason why any street, whatever be its function, should be deprived of this element of beauty, charm and freshness.



PLAN OF APPROACHES TO THE PROPOSED MEMORIAL TERRACE ON GATINEAU HILLS— FOUR MILES FROM THE PEACE TOWER

DEDICATION OF THE NATIONAL CAPITAL PLAN

The National Capital Plan has been dedicated by the Federal Government to the memory of Canadians who lost their lives in the service of their country during the Second World War.

To give this far-reaching thought its full significance, we think that it should, materially and perpetually, retain its highly symbolic value. In our surveys of the Gatineau Hills, we found an ideal site at the extreme southerly point of the hills facing towards the city, which lends itself most favourably to the construction of a Memorial Terrace, from which an imposing panoramic view of the whole Capital region extends itself. The outlook is situated one mile from the intersection of the Mountain and Mine Road and four miles from the Peace Tower. The terrace would lie at the foot of a large wall facing the city, and formed of the natural stone of the ground, and on which inscriptions and symbols would portray the glorious deeds of the Canadian forces, while the National Capital Plan would appear, *in reality,* from the terrace. A memorial room would be incorporated in the design, and therein would be perpetuated the names of Canada's heroes.

Easy access is provided to the site by two existing roads, Mountain Road and Mine Road. A still more direct approach will be by the contemplated Kingsmere Parkway.

Parking facilities, at three different places, made inconspicuous by proper screen planting, would accommodate a large number of cars, at a very short walking distance from the terrace.



EXISTING CONDITIONS



PROPOSED DEVELOPMENT

MAIN EASTERN ENTRANCE

SCHEDULE OF EXECUTION

PART 3

The Master Plan is not a final and rigid blueprint of immediate operations, but a comprehensive and flexible chart of co-ordinated development, subject to amendments and adaptations, resulting from local and detail studies and from unforeseen circumstances.

The proposals are therefore divided into *short range*, *long range* and *eventual operations*, all conditioned by financial possibilities.

All major operations shown on the Master Plan are also represented on a diagrammatic plan called "Schedule of Operations". They comprise eighteen short range proposals, fourteen long range proposals and many other suggestions of lesser emergency, proposed as eventual and local developments integrated in the comprehensive project. They are rather indicative and subject to flexible adaptation when they reach the stage of execution.

GENERAL RECOMMENDATIONS

PART 4

1 Legal Matters

The Regional Plan is a *framework*, within the main lines of which must be integrated the plans of the various municipalities which belong to the region. It is a *guide* to the growth, the organization and the collective life of the whole, recognizing the different functions of the various components, and intended to emphasize their common needs and requirements. The results must be *physical* and *social harmony*, but it will also bring a *substantial saving* in capital expenditure and maintenance.

Far from interfering with, or lessening the autonomy of any one of the components of the urban group, the *unity of conception* in planning and in preparing by-laws related to *zoning*, *building* and general development, will have the effect of strengthening the authority of each municipality. Therefore, the full co-operation of all parties interested, in view of the implementation of the overall plan, will facilitate the speedy realization of all local improvements and ensure a lasting enforcement of municipal by-laws.

In Ontario, the creation of the Ottawa Planning Area Board, which groups the municipalities of the Capital area south of the Ottawa River and functions under the provincial guidance of the Department of Planning and Development, is an example of such co-operation.

In Quebec, pending the highly desirable creation of a similar organization, the Department of Municipal Affairs has appointed a provincial bureau of Town Planning, whose advice to municipalities is most valuable.

The powers of towns and cities, as they appear in the municipal laws or in certain city charters, and despite favourable dispositions for zoning and homologation, are still too limited, in view of the need for protection of the public interests. The most essential town planning operations are costly due to the fact that it is only through street homologation and expropriation that there can be implemented improvements to the town plan. Existing provincial legislations are lacking, in whole or in part, in their dispositions to permit expropriation for housing purposes or to foster reallotment of properties. In urban, and principally in rural areas, reallotment has proved *highly beneficial* to both land owners and the community.

In Ontario, matters of zoning are subject to the approval of the Provincial Department of Municipal Affairs through its municipal Board, while matters pertaining to planning are the prerogatives of the Provincial Department of Planning and Development through local area planning boards. In consequence, contradictory or unrelated decisions may be taken which might be detrimental to the improvement of the communities. A good zoning by-law cannot be prepared without a previous rational planning study of the area affected, and, to be effective in practice, the judgment of the two authorizing agencies must essentially be based upon the interrelationship of their respective provisions. The best town plan remains theoretical and useless, if its rapid implementation and realization are not economically made possible by a previous reinforcement of the planning legislation.

The reinforcement of town planning legislations applicable to the National Capital Region must be reconciled by the Provincial authorities, due to the differences between the Quebec Legislation, based on the Code Napoleon, and the Ontario Legislation, based on English Common Law, and should be developed with a view to meeting the *best common interests of their respective populations* which are *closely identical in both provinces*. Therefore, in essence, the proposed laws would be similar; they would only differ in the form. It is reasonable to assume that jurists of the two provinces could make a joint study of the texts to be adapted to their respective legislations.

The planning of the National Capital Region presents a great opportunity for the early implementation of progressive by-laws and regulations which could *serve as models* for the solution of town and regional problems generally in Ontario and Quebec and which might be adaptable to the whole of Canada. We know by experience of the profit that has been gained in other countries from such progressive and co-ordinated legislation.

The legal problem is undoubtedly the key to the practical success of any town or regional plan. We therefore cannot overemphasize the advisability of the National Capital Planning Committee giving favourable consideration, through appointment of a *sub-committee on legal matters*, comprised of eminent Ontario and Quebec jurists, to enquire into and make recommendations on the important matters above referred to. These investigations will be conducted with the informative cooperation and advice of the National Capital Planning Service on matters related to the technique of town planning. The findings of this sub-committee might then be made the subjects of presentation by the National Capital Planning Committee to the appropriate provincial authorities.

2 Aesthetics

Architectural control is the most complex, the most delicate, and the most difficult to ensure. It affects the volume, height, set-back and spacing of buildings, as well as the nature and colour of materials.

Regulations concerning these factors must be incorporated within zoning and building by-laws.

But when the question of aesthetic appreciation is involved, this control becomes particularly difficult to implement, and the principle of the control itself is frequently questioned.

Therefore, it seems imperative that, to be efficient, the defence of aesthetic values should be entrusted to a responsible authority.

The sub-committee on aesthetics already formed within the National Capital Planning Committee could be the basis of an *enlarged organization* duly recognized by the Ottawa Planning Area Board, and eventually by the proposed Regional Planning Commissions in Quebec, as their Advisory Committee on aesthetics.

There is an initial distinction to be made between the areas to be the subject of aesthetic control and the methods through which this control can be exercised. *The Government lands and buildings* are already subject to control by the Federal District Commission, whose powers have been set forth by Order-in-Council. But aesthetic control limited to government grounds and buildings, though important and necessary, does not cover the whole problem. It ought to be extended to: scenic perspectives, streets, squares, commons, parks, buildings and structures *of all sorts*, including utility equipment.

All plans related to the above-mentioned matters should be passed by the Committee on Aesthetics before issuance of building permits. But *to expedite and make easier such control,* they should be previously presented in their preliminary stages to the National Capital Planning Service, acting as *adviser and guide* on behalf of the Committee on Aesthetics. By such procedures, eventual refusals or unnecessary delay would be avoided.

The function of the Committee on Aesthetics and of its technical advisory service should be strictly limited to general principles, exclusive of any personal preference.

As a typical example, *no style* should be recommended as compulsory for any development, least of all for monumental architecture. Styles are not samples which can be picked up and applied to the use of any building. Styles are the expressions of different periods, and have their particular techniques, their materials, their methods, their means of work, and their limitations. They become artificial and extraneous forms, when those essential factors are forgotten.

The function of a building is always the commanding factor in its design, but nevertheless, it should be adapted to a given frame, and not permitted to express merely utilitarian requirements, regardless of the environment. Within such a discipline, the design should have marked individuality, and liberty of expression.

Too often, literary conceptions, historical remembrances, or mere sentimentality are unduly proposed as aesthetic principles. Nothing is so deceptive than the result brought about by trying to interpret such considerations. A good design is not the product of an artificial evocation. *Architectural design* is above all the *spatial expression of function,* interpreted through the *sensibility of the artist.*

Among the elements which become important factors in the aesthetic merits of a building, are the comparative bulk or height of buildings, the unity of roof angles, the types of roofs and the colour harmony. In a row of single family houses, for instance, it is advisable to use the same type of roofs, or terraces, and essential to keep unity in the shapes as well as in the colours; excess of variety produces disorder. If several colours are used, one must strongly predominate; the others, used as mere accents, emphasize the dominant colour.

From an aesthetic point of view, no comprehensive guiding principles can be formulated with any certainty of a satisfactory result. We have merely mentioned a very limited number of elements which have great importance in the designing of residential or monumental architecture, but satisfactory result can only be obtained through *the personal ability of* the architect, whatever be the nature or importance of the problem.

3 Traffic

The plan of the proposed highway system shows different categories of roads.

These differentiations are not solely matters of indication. They have two definite purposes: (1) the classification of roads permits of the adoption of standards according to such classification and (2) it also permits, through agreement, of the determination of spheres of responsibilities in construction and maintenance.

The guiding principle adopted in the differentiation of those roads is the determination of their proper functions, thereby abolishing the erroneous concept, or absence of concept, of the "street for all purposes".

(a) Classification of Roads — It is suggested that the Sub-Committee on traffic, in co-operation with technical representatives of the Highway Departments and with our Service, make a study of standards for the different categories of roads within the urban area and adapt standards to their respective functions.

(b) Maintenance and Responsibility — Such classification of highways may well be made the basis for establishing the respective spheres of responsibility for maintenance and construction, and may facilitate the provision of by-laws regulating road standards, the treatment of their approaches, and the enforcement of police regulations.

(c) Implementation of the Road System Plan — The implementation of the comprehensive road system is as urgent as is the revision of railroad facilities. In the Province of Ontario there is established procedure through which implementation is assured through official approval of the Master Plan by the Department of Planning and Development. It is hoped that similar procedure can be established in the Province of Quebec. Pending such, it would seem advisable to take the necessary steps through which to reserve the required rights-of-way within or adjacent to built-up areas. Such action will require the approval of the municipalities concerned and would permit of the control of new subdivisions, contiguous to proposed rights-of-way, and of the establishment of the required set-backs paralleling new or existing arteries to be widened.

4 Zoning

Zoning being the prerogative of municipal authority, both in Ontario and Quebec, it is essential, in order to maintain general standards within zoning by-laws applicable to the whole urban region, that the *municipalities collaborate* with the view of adopting general principles as guiding factors in the preparation of their respective zoning regulations.

As already stressed by the Chairman of the National Capital Planning Committee, a matter demanding *immediate action* is the adoption of restrictive measures precluding the establishment of noxious and heavy industries within their respective administrative boundaries, other than in industrial areas specifically designated in the Master Plan.

In this connection, the National Capital Planning Committee, with the technical advice of the National Capital Planning Service, should undertake the prior comprehensive enumeration of industries to be classified as light, heavy or noxious.

Similar collaborative action is recommended in the adaptation of proposed building densities to the guiding principles indicated on the Master Plan and in the Report.

Such co-ordinative action is imperative for the full implementation of the Master Plan.

5 Public Relations

No master plan can be successfully implemented, no town planning law efficiently enforced, if the public and their representatives are not properly *informed of the real* and material value of town planning. The beneficial and direct influence of community planning on economics and welfare, and the immense saving obtained by foresight are generally considered as town planners' bluffs. General ignorance must be blamed for this, but also the lack of psychology on the part of planners, who fail to inform and educate those to whom their work is devoted. Academic disputes and theoretical demonstrations just confuse the man in the street, who expects good housing, public services, adequate communications and recreational facilities.

Therefore, to foster any city improvement or development, an efficient service of public information is essential. To this purpose, the National Capital Planning Committee has appointed a Sub-Committee on Information and organized a *service of Public Relations and Information*, which has formulated a complete program of action through the press, illustrated periodicals, radio, the cinema, exhibitions and lectures.

The scope of such information is designed not only to make the general public acquainted with the characteristics of the National Capital Plan but, primarily, to demonstrate the advantages of such comprehensive work, and gradually create keen public interest in town planning, and *public demand* for urgent action by the authorities for the carrying out of the improvements proposed in the plan. To create such interest and demand, it is not only essential to show that the common objection that city planning and improvement mean more taxes is fallacious, but that, on the contrary, when the proposed measures have been elaborated with a view to meeting the needs and requirements resulting from serious surveys of existing conditions, *they protect and enhance all* private interests *and* aspirations.

To prove this, many examples of successful town planning work accomplished elsewhere must be described and analysed in order to show their common similarity to the particular problem considered. Facts, figures, true illustrations are more convincing than theories or general considerations.

Citizens' organizations and associations, such as the Community Planning Association, the Canadian Club, service clubs, artists' societies, and particularly professional institutes such as the Royal Architectural Institute of Canada, the Engineering Institute of Canada and the Institute of Professional Town Planners, are willing to give most efficient co-operation and support.

The co-ordinated action of the Director of Public Information of the National Capital Planning Committee with that of all public-spirited and competent citizens' organizations, will be a potent factor in guaranteeing the success of the campaign of town planning education.

6 Delimitation of the National Capital Region

The National Capital Region, as defined in Order in Council 5635, of August 16, 1945, is amply sufficient for the planning work of the region. In fact, a relatively small part of it, 200 square miles out of 900, calls for physical planning, the balance being subject only to protective measures, to keep its rural and touristic character. In view of the latter objective we have, as per letter of July 10, 1946, requested the consideration of the National Capital Planning Committee to the advisability of either slightly revising the limits of or simply extending protective measures to parts of the surrounding territory outside of the present regional limits.

The new limit would follow physical features of the region preferably to artificial delimitations. It would include in the Province of Quebec, Wolf Lake, Mahon Lake and the group of Wakefield, McNab and neighbouring lakes north of MacGregor Lake. It would also protect the whole valley of the River du Lièvre. In Ontario, it would include the valley of the Mississippi River, the natural beauty of which calls for protection.

CONCLUSION

Throughout four years of most gratifying and interesting studies, we have been constantly encouraged by our unabated faith in the great destiny of the Capital of Canada, reflective of its growing national prestige.

We have endeavoured to follow the orders we received from the Canadian Government to *prepare for the future with broad vision and foresight,* and with a true concept of the *time element,* the great judge of all human enterprise. We, therefore, discarded from our plans all half measures, or limited and shortsighted solutions, as well as utopian suggestions, as we know that both are unefficacious and ruinous.

Our plans, our recommendations, may seem too ambitious and impractical to those whose imagination is limited to consideration of the present, sometimes of the past, as a permanent command. They ignore the lessons of history, the inexorable march of time; they may admit and enjoy material progress, but they deny social and moral evolution. Town planning is a component of human geography, and its advancement must be conceived at the rhythm of progress in all domains.

What appears today as ambitious visions, may quite likely, in less than a generation, be considered as too modest. In the light of such unforeseen developments, we have made a marked difference between imperative requirements, for which we propose definite short and long range operations, and the more remote developments, or more difficult and costly corrective operations, for which our plans permit flexible adaptations. At any rate, the time element will settle many controversies. *Above all, our work has been devoted to the welfare of the population, and not to the preparation of theoretical and pleasing pictures.* We trust that our basic studies of the requirements will be undeniable arguments in support of our findings.

The success of any far reaching scheme needs patience. The long life of a city is the result, and almost the mirror, of its destiny. The Master Plan we have prepared, and the many improvements which, we are sure, will be added to it by our followers, will reflect, during the years to come, the degree of progress and prosperity of the Capital. Despite pessimistic or sceptical views, we believe in the rapid growth of Canada's Capital, as we believe in the rising importance of the whole Canadian nation. Big plans are made for prosperity, and prosperity always calls for commensurate accomplishments. Canada, with its unlimited resources and its social equilibrium, wisely protected by true democratic leadership, is considered abroad as a blessed land.

The population will continue to grow, as the result of the physical law of natural balance, governing the spontaneous redistribution of populations amongst the civilized nations. Forty million people, instead of twelve, is a reasonable possibility for the Canadian population at the end of this century. Then, our estimated total of half a million for the Capital population might prove insufficient. We have not overlooked such eventuality: the principle of planning community units provides for moderate and controlled densities. A slightly increased density is not detrimental to the health and comfort of the units; more apartments and less single family dwellings would house another 100,000 people, or, if the people's preference for intimacy is still in honour fifty years hence, satellite towns, built outside of the rural belt, will take care of the additional population.

Foreseeing the unforeseeable is nonsense, but preparing for it is permissible. In our enthusiasm and confidence in the implementation of our plans, we do not underestimate the delays and difficulties, which will involve additional work, revised plans and many readjustments. But always, optimism and patience win in the long run.

Personal Acknowledgement

We could not present our work without expressing our sincere indebtedness and gratitude for the invaluable assistance received from all Governmental or local authorities, and from all technicians and responsible representatives of the various administrations interested. Such assistance is indicative of the fact that a comprehensive town planning work cannot be the product of one man but requires the co-ordination of the contributions afforded by collective research and effort. In the present case, the unanimous support and encouragement we enjoyed showed that the time was opportune in which to undertake this work.

In conclusion, it is my privilege, and reward, to express my deep and personal gratitude to all those who have so greatly helped our work by their kind support, their invaluable contribution and their faithful co-operation, from the Great Statesman whose name will be associated in perpetuity with the development of the National Capital, to the most humble assistant in our Service. I dare to say that the staff of the National Capital Planning Service has produced, with the most commendable talent and zeal, a remarkable work which has a double merit: the preparation of the plan of a Capital worthy of Canada, and an incentive for the planning of other cities.

Jacques Gréber, Hon. F.R.A.I.C.

THE ORGANIZATION BEHIND THE CITY PLAN

APART from Mr. Jacques Gréber's official preliminary report on the Plan for the National Capital, probably the most comprehensive and fully illustrated explanation of the plans for the development of the Capital yet published appears in this issue of the *Journal* of the R.A.I.C. Any additional explanation of the plan on my part would therefore be superfluous. There is one aspect of the project however, which, because the successful execution of the Master Plan in the years ahead depends so much upon it, will bear elaboration. This is the organization which has been established and made responsible by Parliament for carrying out the work.

Unlike previous plans for the development or improvement of the Capital — the Todd Report of 1903, the Holt Report of 1915, Noulan Cauchon's unofficial plan in 1922, and even Mr. Gréber's first and relatively restricted plan in 1937-39 — the new Capital Plan is a national undertaking in every sense of the word, for its execution is the responsibility of two representative bodies, independent of government and above local or sectional influences.

The parent organization is the Federal District Commission, the agency through which the Federal Government has co-operated with the City of Ottawa in the improvement and beautification of the Capital since 1899. In 1946 it was made responsible by Parliament for the execution of the Master Plan then being prepared by Mr. Gréber and his Canadian associates, and its membership, heretofore local, was increased to permit the appointment of a member for each of the provinces, thus bringing to the undertaking the points of view of all sections of Canada.

At the same time a National Capital Planning Committee was formed to act as permanent advisory body to the Federal District Commission on the Planning. Like the Commission, it is an honorary organization, its members serving without remuneration.

While the Committee has no executive authority, its influence is powerful and its responsibilities comprehensive.

By law, the membership consists of the Federal Minister of Public Works (Hon. Alphonse Fournier, K.C., M.P.); the Chairman of the Federal District Commission (F. E. Bronson, M.E.I.C., of Ottawa, who was elected Chairman of the Committee); two members appointed by the City of Ottawa (Controller L. L. Coulter and Alderman David McMillan, M.E.I.C.); one member for the City of Hull (Mayor Alphonse Moussette, also automatically a member of the F.D.C.); and twelve members appointed by the F.D.C., of whom two represent the Engineering Institute of Canada (Dr. Arthur Surveyer, Montreal, and E. L. Cousins, C.M.G., Toronto), two the Royal Architectural Institute of Canada (an honour given to Mr. A. S. Mathers, R.C.A., F.R.A.I.C., Toronto, and myself), one to represent the seven Ontario municipalities in the District exclusive of Ottawa (Mr. D. P. Cruikshank, O.B.E., Reeve of Rockcliffe Park Village), one to represent the 21 Quebec municipalities exclusive of Hull (Dr. Rodolphe Leduc, Maniwaki). The members at large appointed were Watson Sellar, C.M.G., Auditor General of Canada; and Mr. Charles G. Cowan of Ottawa.

Mr. Jacques Gréber, the eminent Town Planner, was appointed Consultant to the Committee, although, for administrative purposes he and his staff in the National Capital Planning Service are attached to the Department of Public Works.

The Committee has five sub-committees, each of which works independently of the main committee, but report to it periodically. These are sub-committees on Traffic and Highways, Railways, Legal Matters affecting the plan; Public Information, and Aesthetics.

The Information Sub-Committee retained the services of Walter Bowker of Ottawa to prepare a comprehensive program to acquaint the Canadian public with all aspects of the plan, and has issued two films and an illustrated booklet on the subject in addition to a large public exhibit of the plans and models which is being sent on tour of all large cities in the Dominion. Its first showing outside Ottawa was in Montreal on 26th of October, where it was officially opened by Prime Minister the Right Honourable Louis St. Laurent.

The Sub-Committee on Aesthetics probably has one of the most important tasks of all, for it is responsible for approving the architectural design, location and surroundings of all new federal buildings. To date approval has been given to the site and design of the new Department of Veterans' Affairs building on Wellington Street (Allward and Gouinlock, architects, Toronto); and sites have been approved for the new Government Printing Bureau in Hull (Ernest Cormier, architect, Montreal); and the site of the new Bureau of Statistics Building (Ross, Patterson, Townsend and Heughan, architects, Montreal).

The present members of this sub-committee are J. A. Ewart, Ottawa, A. S. Mathers, Toronto, Gaston Amyot, Quebec, and myself.

Chas. David

ROYAL ARCHITECTURAL INSTITUTE OF CANADA

INCORPORATED BY THE DOMINION PARLIAMENT 16th JUNE, 1908, 1st APRIL, 1912, AND 14th JUNE, 1929

NEWS FROM THE INSTITUTE

TORONTO ART GALLERY EXHIBITION

The Royal Architectural Institute of Canada is participating in an exhibition of Contemporary Canadian Art, which is being held in March, 1950, at the Toronto Art Gallery, in celebration of the Gallery's fiftieth anniversary. The collection of material for the display was started at the beginning of December, and the various Provincial Editorial Boards were requested to act as local committees to gather photographs for submission to the selection committee in Toronto, for final screening for the exhibit. The deadline date for the receipt of their material was set at January 2nd, 1950.

Should any interested member wish to forward work for the consideration of the screening committee at this date, it is requested that he send his photographs direct to the Toronto committee, rather than through his local Editorial Board representatives. Photographs should be addressed to the Secretary, Royal Architectural Institute of Canada, 1323 Bay Street, Toronto, and the following details should be noted:

1. Photographs only (8″ x 10″ glossy prints) will be considered, *not* plans or perspectives.

2. Buildings completed since 1940 will be eligible for display.

3. Material must be submitted by January 10th, 1950.

ALBERTA

Throughout Alberta most of the season of 1949 has been unusually dry so that in November the great North Saskatchewan River had sunk to a record low level. The fall being very open and the weather generally fine, building works had exceptional opportunity to be carried on without danger from frost. In spite of some serious shortages of labour and materials, many buildings were covered in before winter set in, an event for which there at one time seemed little expectation.

Yet in the midst of this serene calm of nature the city of Edmonton has experienced a succession of sudden changes in its administrative and executive departments which amount to a small revolution. The very active and virile mayor, Harry Ainley, whilst holidaying in British Columbia, suffered an accident which so severely shook his constitution that he was compelled to refrain from standing again as a candidate at the November elections. The city has thus a new mayor and some new councillors. During the year also the City Engineer, Mr. A. Haddow, was given a larger commission in consequence of which his assistant, Mr. Macdonald, was appointed to this office. The City Architect and Building Inspector, Mr. M. C. Dewar, has decided to go into private practice and has joined the firm of Stevenson, Cawston & Stevenson who have now opened a branch office in Edmonton. Two of Mr. Dewar's former assistants, Miss J. L. Wallbridge and Miss M. Imrie, both of them registered architects, have resigned from their positions to carry out temporary private researches in South America. This has, incidentally, involved the appointment of a new member of council and treasurer of the A.A.A., Mr. Ross Stanley. It is announced that Mr. R. Duke has been appointed City Architect and Building Inspector.

In addition to the above changes there has now been appointed a city Town Planner, Mr. Noel Dant, a graduate in Town Planning and a member of the Royal Institute of British Architects. It is expected that Mr. Dant will create a special Town Planning Department and tackle the immense job of establishing a systematic forward marching system of order out of an eddying chaos, which is the bold ambition of modern town planning. In this work he will find the city suffering from some severe growing pains. The great extension of oil fields around Edmonton has quite visibly increased the street traffic and the severe bottlenecks now occurring at the various bridges across the river are obvious indications that traffic routes are due for large scale revision. Mr. Dant's work as town planner is, of course, distinct from but has definite relationship to the work of architects. Since there is that close relationship and since architects can readily appreciate the value of town planning, it is to be expected that Mr. Dant will find sympathetic and understanding support from this profession.

It might be too readily supposed that so many changes of a fairly radical nature in the city administration must be related to some revolutionary ideas on the part of some individual or may have been made in response to some clearly expressed public demand. With the exception of the various changes in the internal set-up in the city architect's department there is, so far as I am aware no connection between the various changes. They have just chanced to occur closely together. Changes in methods of management no doubt become due periodically in the course of life of a rapidly growing city. The present rapid growth of the city of Edmonton is in large part due to the opening up of new oil fields in the neighbourhood, with consequent establishment of numbers of industries in the city. It may well be that still more radical changes than those enumerated above are already overdue.

Cecil S. Burgess

ONTARIO ASSOCIATION OF ARCHITECTS 1950 CONVENTION AND ANNUAL MEETING

The 1950 Convention and Annual Meeting of the Ontario Association of Architects marks the Diamond Jubilee of the Association, and it will in all probability be one of the most interesting and educational gatherings in the history of the Association.

The Committee of Arrangements, under the chairmanship of Mr. George Gibson, has spared no effort in providing a programme which will include many new features and functions, and which it is felt will ensure a record attendance of members from all parts of the Province.

The Honourable Sir Alexander Clutterbuck, K.C.M.G., M.C., the High Commissioner for the United Kingdom in Canada will be the guest speaker, whose subject will be "Rebuilding For Tomorrow".

In view of this special occasion, which marks the 60th anniversary of the Association, it is felt that it would be most appropriate to have the wives of the members take part; arrangements are being made, therefore, to invite the ladies to a number of the events, notably the Annual Dinner on Saturday, and also to provide special entertainment at other times during the two days.

Other features of the Convention include a large and more carefully planned exhibition of new building materials and techniques; a hobby show displaying work by both Architects and Architectural Students, and representative work by students of the Ontario College of Art. There will be an outstanding exhibition and competition of architectural photography by professional photographers.

The theme selected for seminar discussions at this year's Convention is Public Housing led by eminent professional specialists who will discuss all aspects of the housing problem, which will include economic, social, Government participation, site planning, and physical planning.

Time - - - - - - January 20th and 21st, 1950

Place - - - - - - Royal York Hotel, Toronto

LETTER TO THE EDITOR

Is culture something we can successfully legislate? Or would better results be obtained if we concentrated on creating a climate favorable to cultural growth?

Architects, according to the R.A.I.C. brief to the Royal Commission on National Development in the Arts, Letters and Sciences, apparently prefer the direct, not the indirect method.

If press reports are accurate, parts of the brief wandered far afield from architecture. Radio, "the greatest and most universal instrument of education," was referred to as a medium whose "entertainment value catered to less than average intelligence, and, with a few exceptions, is merely sales propaganda tagged on to nonsense or pseudo-romantic drivel".

The remedy attributed to the R.A.I.C. would be elimination of programs "which imposed standards based on appeal to the non-intelligent." This would be accomplished by putting cultural leaders of the country in firm control of radio, "rather than the determination of program policy by contributory advertisers."

The newspapers have made the most of this castigation of their rival for advertising appropriations. In fact, it's doubtful if any statement of the Institute in its entire 40 years of life has been so well publicized. Unfortunately, the papers omitted to point out the function of advertising in a responsible enterprise economy. It is to increase demand, thus necessitating higher production, which results in lower costs to consumers. The framers of the brief appear to be unaware how important it is to architects that advertising of all types be successful. If it is, then the entire construction industry benefits. And since when has the profession been adverse to prosperity?

As quoted in the press, the R.A.I.C. brief claims that competitive advertising is wasteful. It cites the case of soap manufacturers who pay vast sums for radio advertising, resulting in their receiving diminished returns. This is pure distortion. It puts the manufacturer in the position of selling goods to buy advertising, instead of buying advertising to sell goods. And it ignores the fact that there are plenty of ways to detect whether or not advertising is doing a good job. If it's not, it is promptly discontinued.

No, the truth is that radio advertising pays off. It pays off because people like listening to the programs. This is probably what exasperates the framers of the brief, rather than the programs themselves. But instead of suggesting educating the public to like something better, they want to force it to listen to programs which its cultural development makes it incapable of understanding or appreciating.

The episode shows how latent dictatorial tendencies can exist in the best mannered and intentioned of people. It's a reminder that we should be tolerant of the tastes of those who have not had our cultural advantages. We must guard against whittling down the democratic privileges of any segment of the population — even if it's only listening to radio programs of their choice — lest we find some day those of the architectural profession are gone too!

John Caulfield Smith

PARTNERSHIP WANTED

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JOURNAL, ROYAL ARCHITECTURAL INSTITUTE OF CANADA

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VOLUME 26, 1949

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ILLUSTRATIONS

ARTISTS, AUTHORS AND CONTRIBUTORS

ARTISTS, AUTHORS AND CONTRIBUTORS—*Continued*



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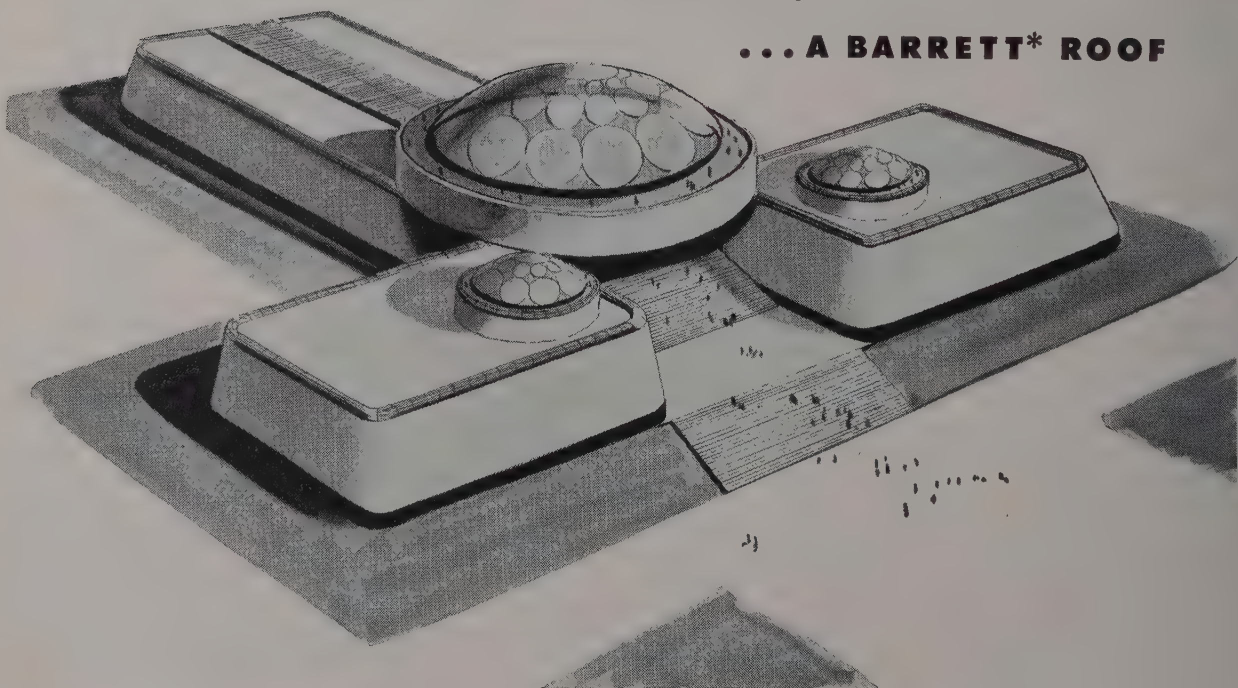
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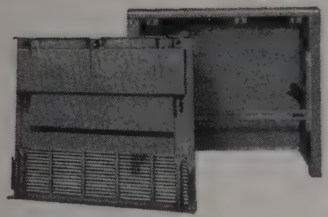

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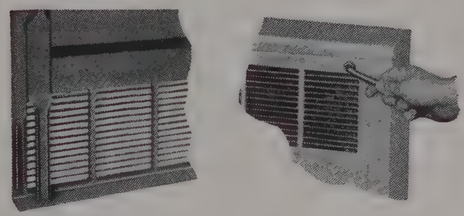


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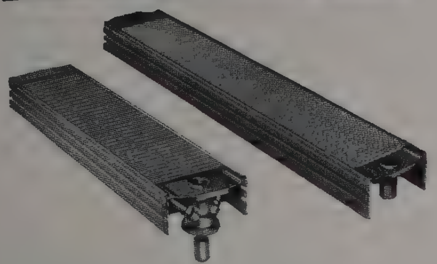
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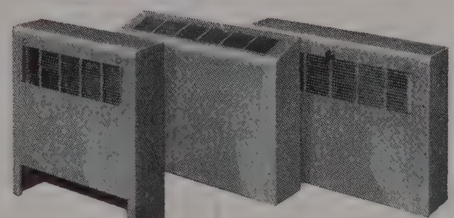
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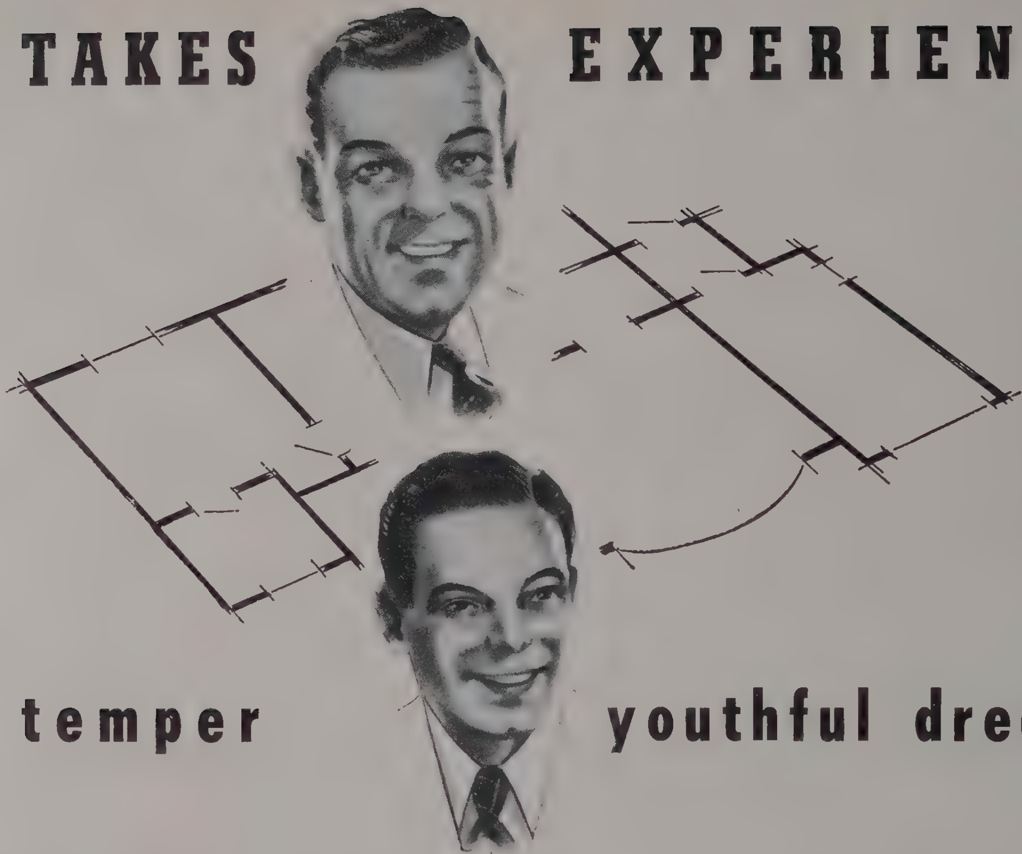
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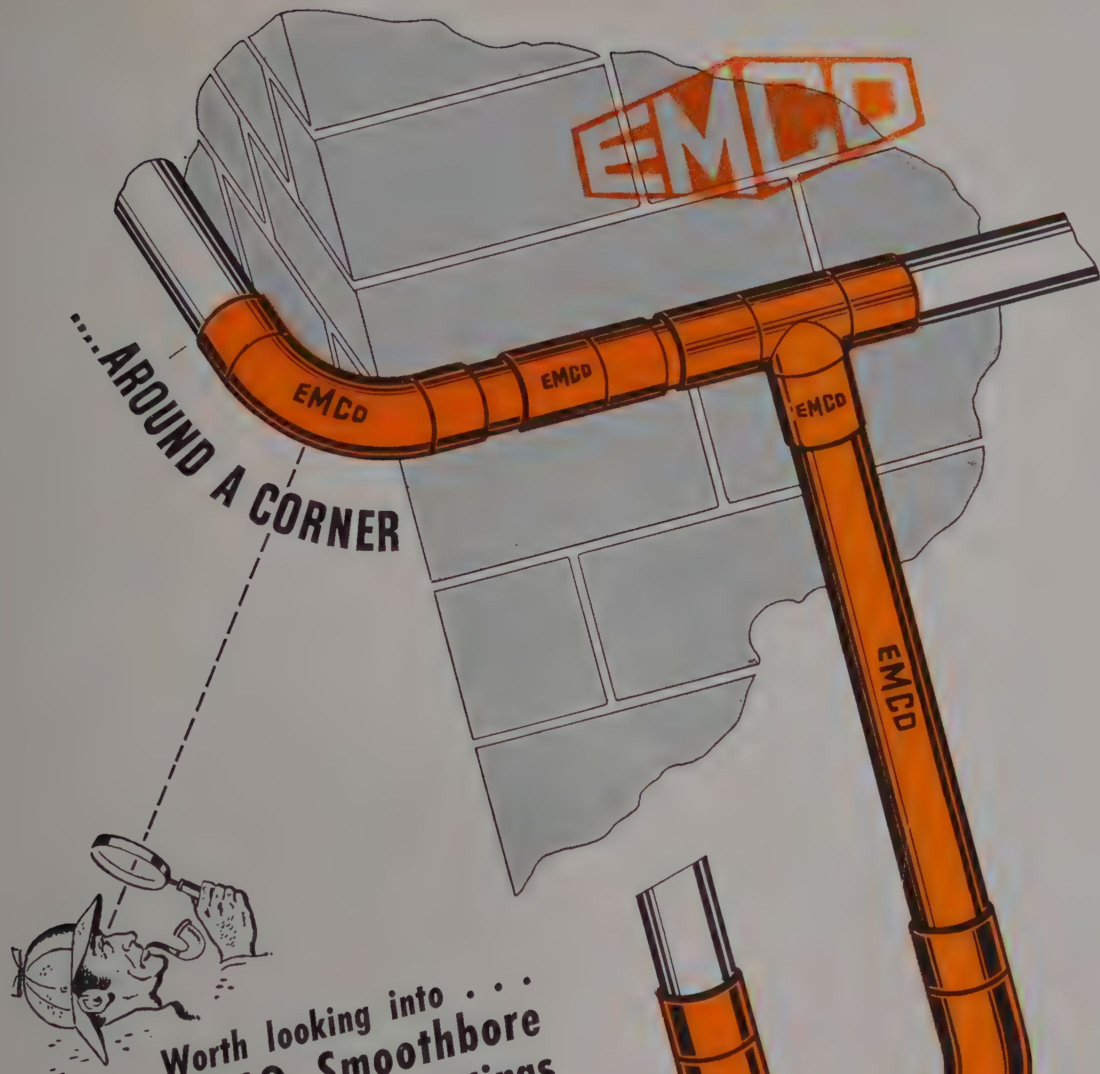


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EMCO Smoothbore WROT Copper Fittings

EMCO Smoothbore WROT Copper Fittings will give trouble-free life-long service wherever used . . . in Plumbing, Hot Water Heating, Drainage, Refrigeration and Air-Conditioning.

You cannot go wrong using everlasting copper piping with EMCO Smoothbore WROT Copper Fittings for . . . copper will not rust . . . you reduce installation time . . . EMCO solder joints are stronger than the pipe . . . pipe and fittings expand and contract at exactly the same ratio . . . will stand tremendous pressure . . . the FIRST COST is the LAST COST.

Install the BEST . . . Install EMCO.



Distributed by Reliable Jobbers or Service from any EMCO Branch.

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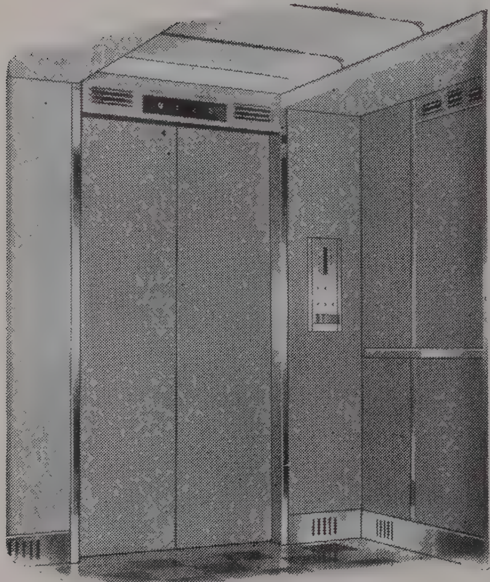
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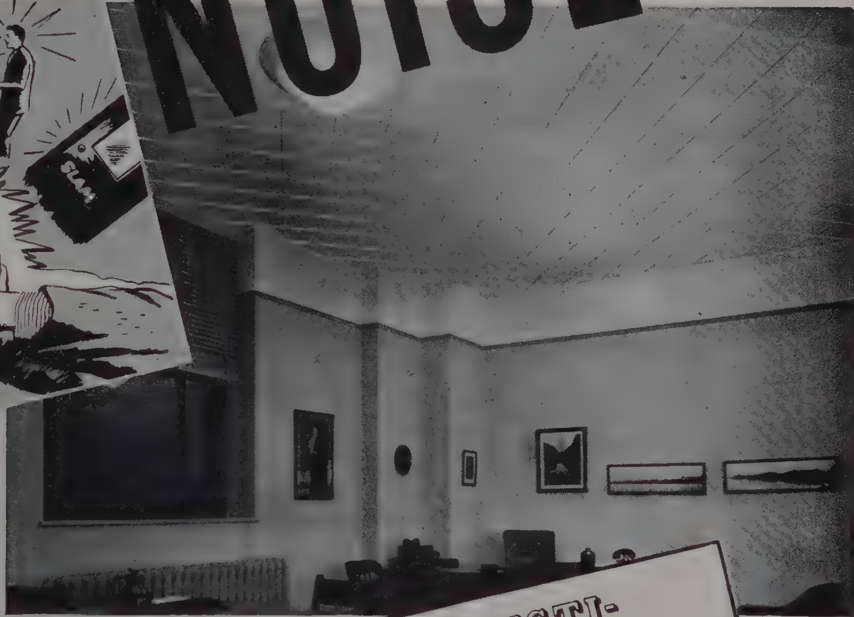
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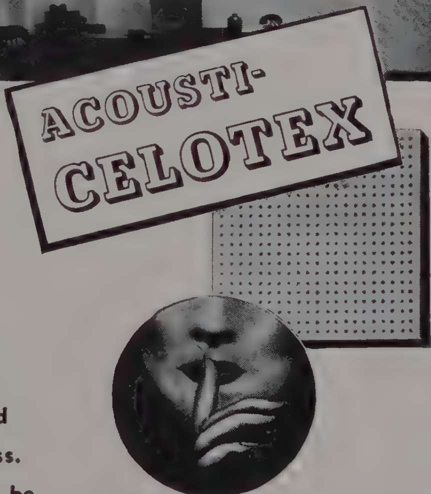
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Apply Sound Absorbing

◆ It's a clever business deal to trade noise for quiet by applying Acousti-Celotex to ceilings. Actual tests have proved that this sound conditioning has increased workers' speed, reduced errors, and reduced the strain which results in absence of staff through illness. Noise is costly! With Celotex acoustical treatment it can be profitably corrected. It is easily and quickly installed, and is so easy to maintain. Repeated painting does not lessen its sound conditioning efficiency.

Get in touch with our nearest branch for consultation and estimate

Dominion Sound Equipments
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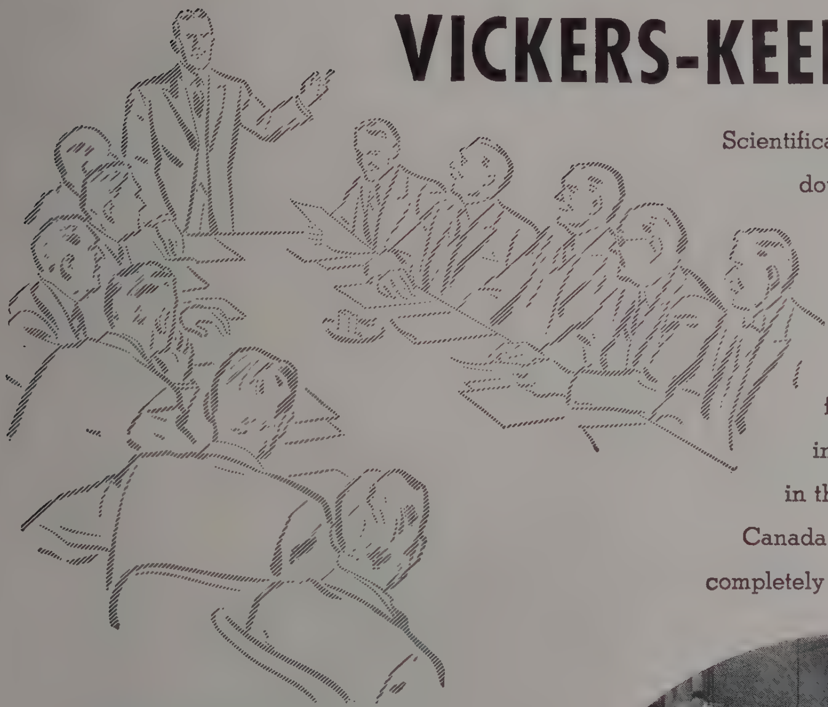
Head Office 4040 St. Catherine St. West, Montreal

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Scientifically designed, with the exclusive double-ring circulation system, the powerful Vickers-Keeler Boiler is unexcelled for operating efficiency.

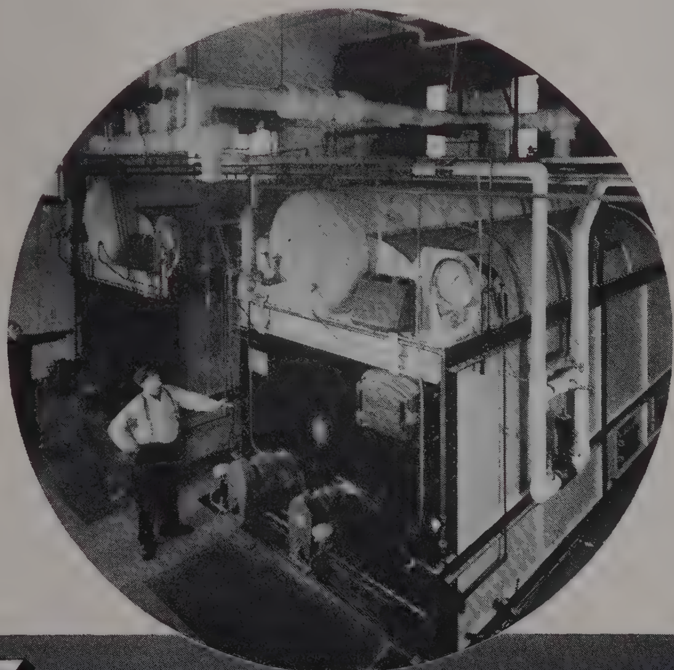
When you purchase one of these famous boilers, you are indeed in good company. For the leaders in the leading industries throughout Canada have selected and installed this completely dependable boiler.

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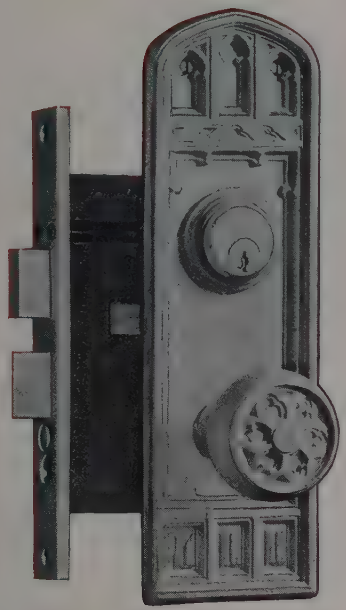
V-379

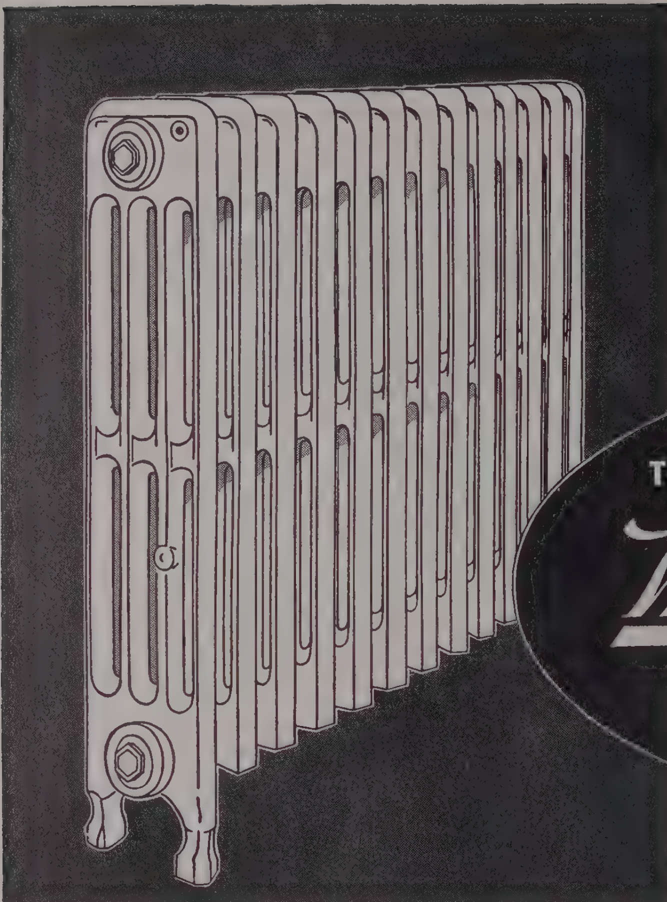
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INDUSTRIAL BOILERS
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Typical of modern cast iron radiators manufactured by Warden King is this

FREE-STANDING UNIT

The simple, slender lines are well suited to modern interiors. Advanced design, including the shape of the tubes, increases radiation per square inch of heating surface and delivers more heat per unit of space occupied.
In the comprehensive W.K. line are the styles and sizes to meet every architectural need.

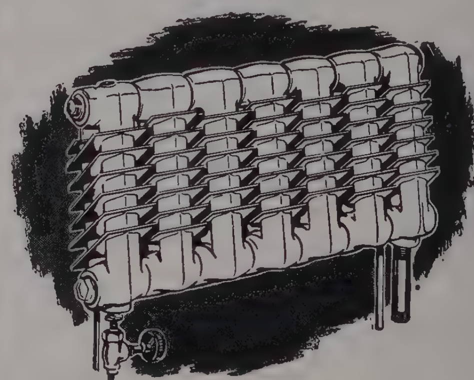
DESIGNED TO INCREASE RADIATION

Warden King LIMITED

RADIATORS

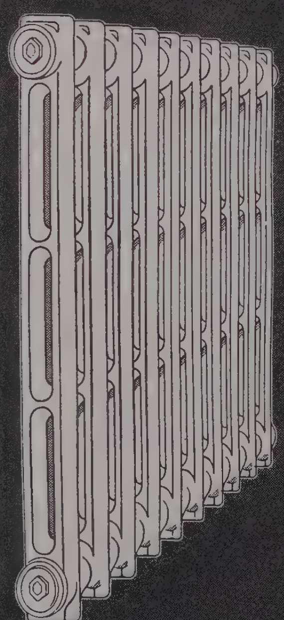
CONCEALED RADIATORS

Warden King Cast Iron Concealed Radiators meet the modern demand for radiators that can be hidden away, yet provide the utmost in heating efficiency. Their sectional construction makes them highly adaptable to space requirements.



WALL RADIATORS

Warden King Cast Iron Wall Radiators—of sectional construction and compact dimensions—are ideal for use wherever floor space is an important factor.



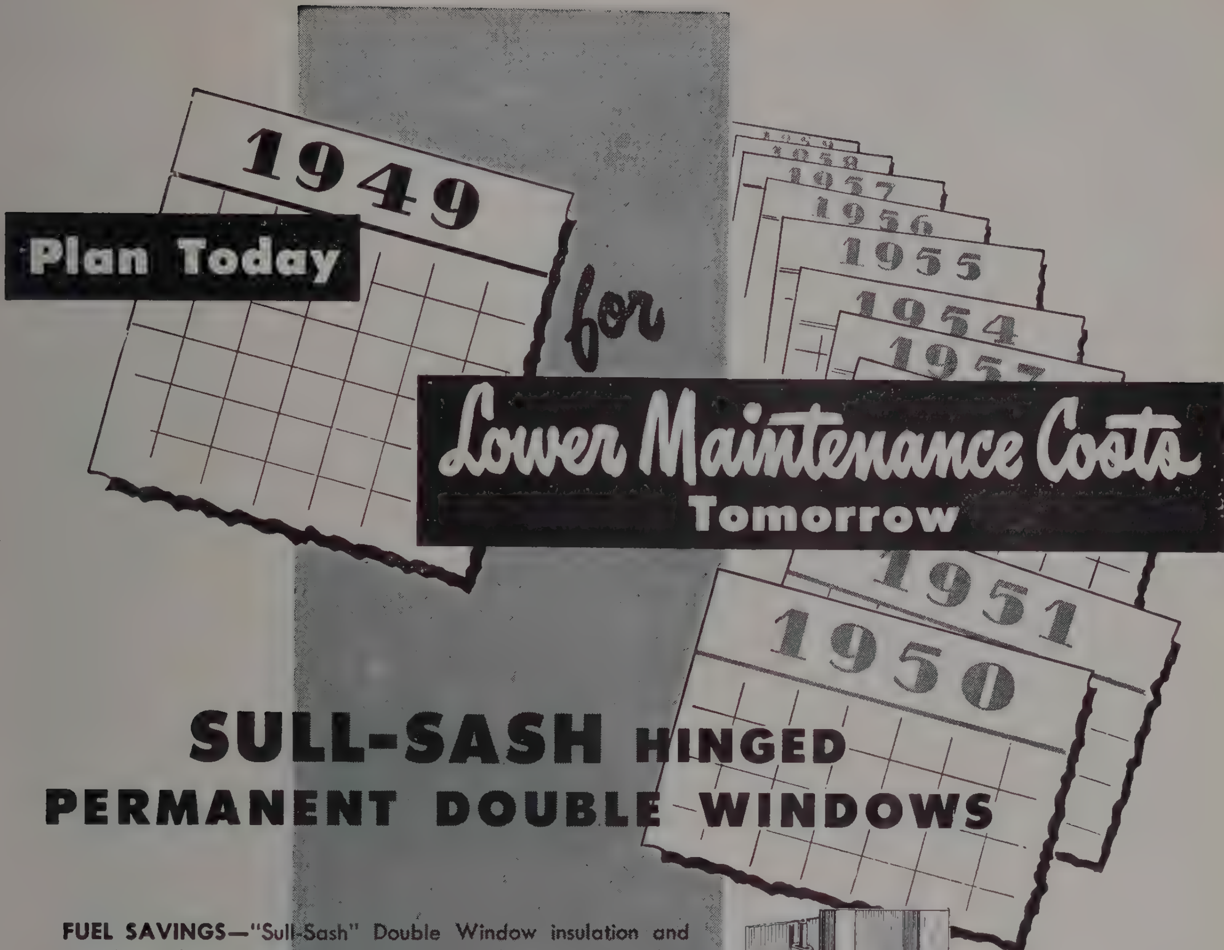
For detailed information on the complete line, see the Warden King Heating Catalogue.

Warden King LIMITED

"THE GRAND OLD NAME IN HEATING'

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SULL-SASH HINGED PERMANENT DOUBLE WINDOWS

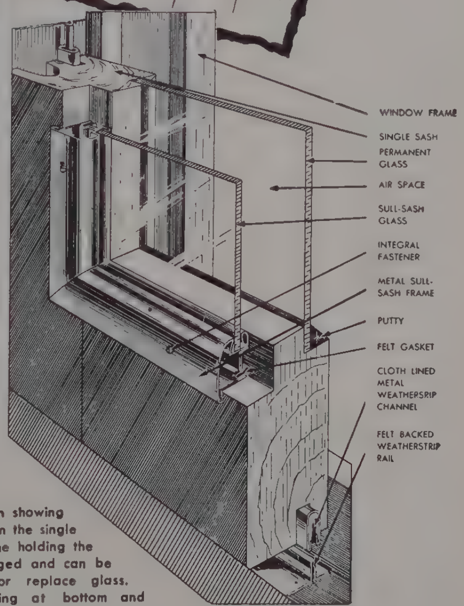
FUEL SAVINGS—"Sull-Sash" Double Window insulation and complete, efficient weatherstripping can cut heat loss in window areas by as much as 50% compared to single glazing. Fuel is saved and a building keeps cooler in summer and warmer in winter.

NO STORM WINDOWS—"Sull-Sash" completely eliminates the cost of storm windows and the yearly expense of cleaning, installing, removing and storing them.

LESS CLEANING—"Sull-Sash", highly efficient in preventing the infiltration of dust, dirt and moisture into a building, reduces cleaning expense. The inside window areas of "Sull-Sash" need be cleaned seldom (in many cases once every two years is sufficient).

SULL-SASH IS CUSTOM-BUILT TO SPECIFICATIONS AND INSTALLED BY CRESSWELL POMEROY SPECIALISTS

Contact your nearest Cresswell Pomeroy office for further information on "Sull-Sash".



A "Sull-Sash" section showing the double window in the single sash. The metal frame holding the inside glazing is hinged and can be opened to clean or replace glass. Note weather-stripping at bottom and side of sash to further reduce infiltration of moisture, dust, dirt and wind.

CRESSWELL POMEROY LTD.

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HALIFAX · WINNIPEG · QUEBEC CITY · EDMONTON · TORONTO · VANCOUVER

MONEL the *economical* material for roofs!



Monel batten pans being placed in position on the roof of the Ford Motor Company's new Research and Development Center in Dearborn, Michigan. The lapped-over joints are slid and locked together.



Monel flashing being installed on the roof of the Office Specialty Company's plant, Newmarket, Ontario.

Monel* is stronger than steel . . . tougher than any other non-ferrous roofing material. It has excellent resistance to corrosion caused by chemicals usually present in city air, and to the corrosive atmospheres of industrial and coastal areas. Its low coefficient of expansion reduces the possibility of fatigue failure. The abrasive wearing action of snow and ice has little effect on Monel. It stands firm against strain and flexure . . . doesn't creep and buckle as many other roofing metals do.

Everything considered, Monel is the material for roofs that *last* . . . and last *economically*. Specify Monel for gutters, flashing, downspouts, skylight frames, ventilators and other vital sheet metal work.

**Trade Mark.*

EMBLEM OF INCO MONEL SERVICE
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THE INTERNATIONAL NICKEL COMPANY OF CANADA, LIMITED, 25 KING ST. W., TORONTO

"We're putting *Fiberglas** roof insulation over the whole plant"

When the problem involves flat or low-pitched roofs with no loft space, the most effective and economical method of controlling heat flow is by means of above-deck insulation with Fiberglas C69-K Roof Insulation. Cost is low. The comparative light weight of Fiberglas imposes no significant dead load on the roof structure. The inorganic insulating core of the insulation is rot-proof and has adequate structural strength to withstand normal traffic during periods of installation, inspection and maintenance.

Fiberglas C69-K Roof Insulation is applied by normal installation methods commonly used with other roof insulating materials.

Increased costs of heating and air-conditioning throw more and more emphasis on insulation specifications. High building costs continue to complicate the problems. That is why Fiberglas is fast becoming universally recognized as the ideal insulation material wherever temperature control is desirable or necessary.



THESE PROPERTIES MAKE FIBERGLAS THE OUTSTANDING ROOF INSULATION

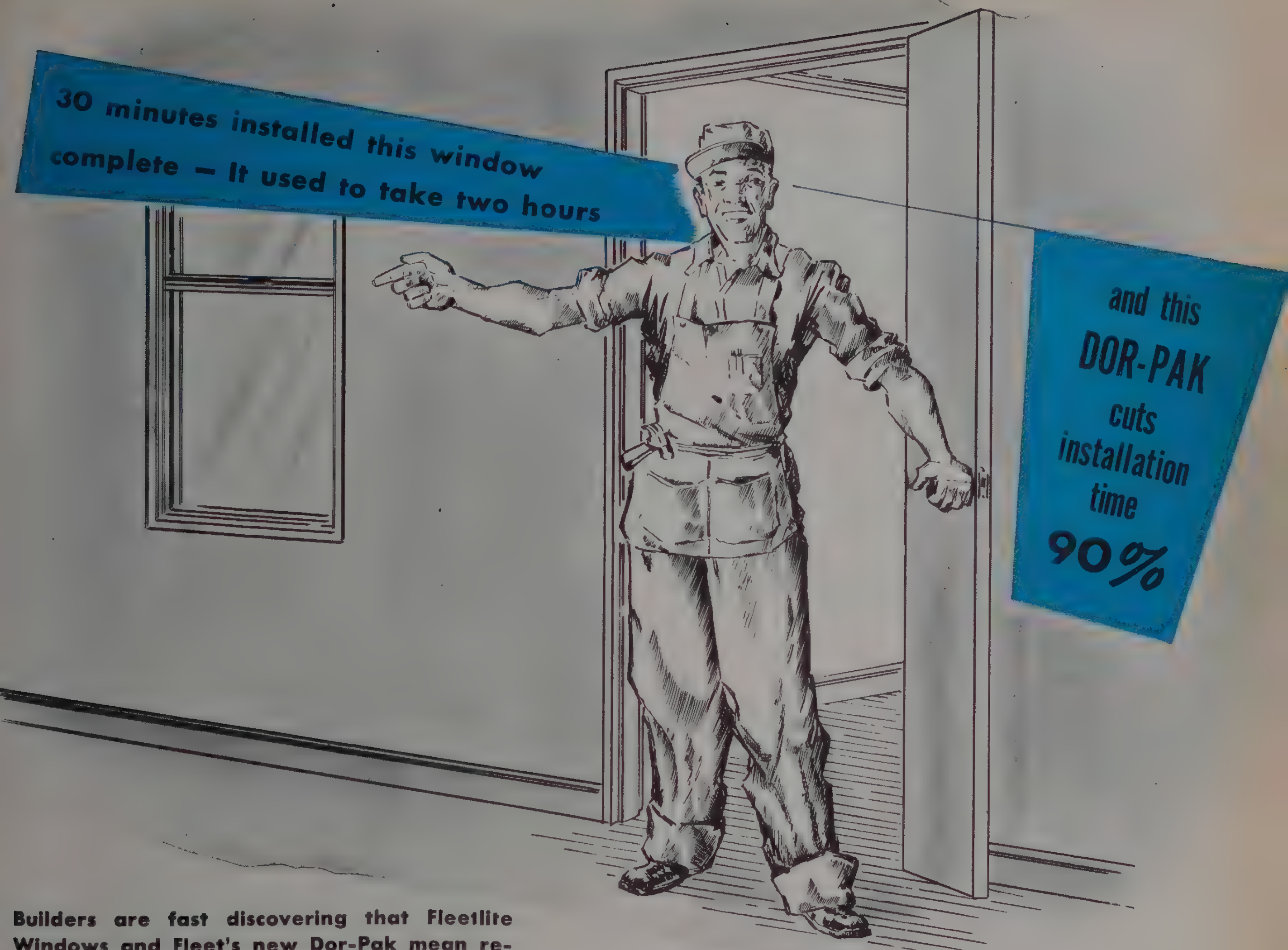
Low thermal conductivity. Good moisture resistance.
Dimensional stability. Good weathering qualities.
Ample load-bearing strength.

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FIBERGLAS CANADA LIMITED

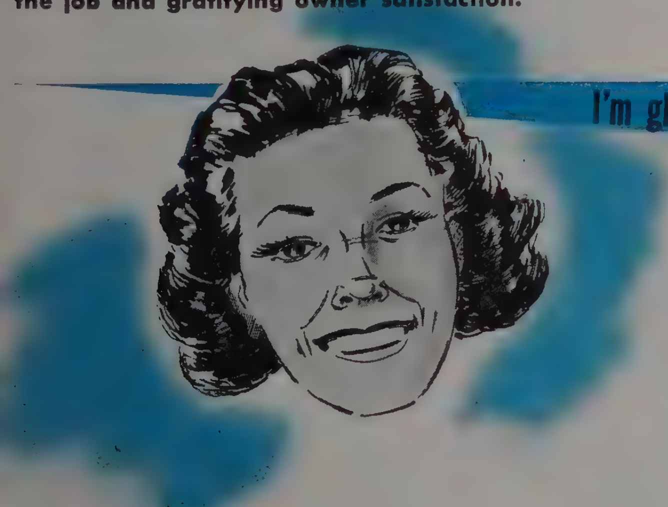
A Lifetime Insulation!

General Sales Office: 1200 Bay St., Toronto, Ont.


AND WINDOW TOO!
THROUGH THIS DOORWAY LIES YOUR KEY
TO LOWER BUILDING COSTS



Builders are fast discovering that Fleetlite Windows and Fleet's new Dor-Pak mean reduced installation costs, quicker completion of the job and gratifying owner satisfaction.



I'm glad my builder installed FLEETLITE and DOR-PAK

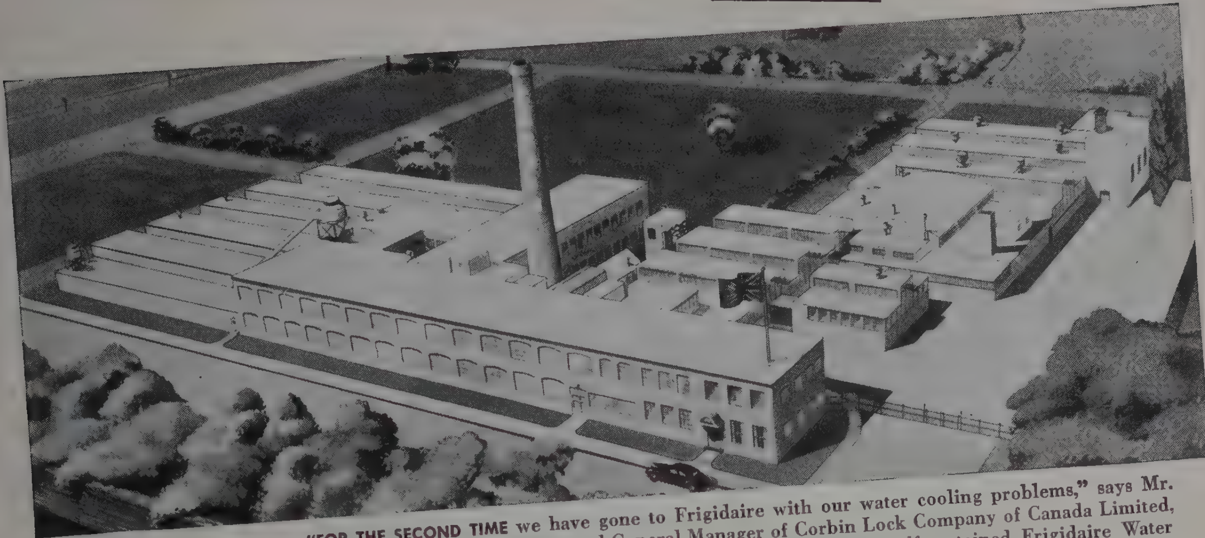
BECAUSE they harmonize with everything, inside and out. The soft natural aluminum of the window sash and the force-dried, white enamel of the door jambs go with any colour scheme.

BECAUSE they never have to be painted—there simply isn't any upkeep. And the trim, narrow sash give me far more glass area than in conventional windows of the same size.

BECAUSE the windows never stick or rattle — and the sash are easily lifted out so that I can clean both sides indoors.

BECAUSE the storm sash and the screen that come as part of my windows can be left in the year around—or are easily removed and stored out of season, from inside the house.

The Experience of Others Proves—



"FOR THE SECOND TIME we have gone to Frigidaire with our water cooling problems," says Mr. L. E. McLean, Vice-President and General Manager of Corbin Lock Company of Canada Limited, Belleville, Ontario. "In 1934 we purchased six industrial-type, self-contained Frigidaire Water Coolers for our employees. These have given us perfect satisfaction all these years and our recent second purchase was definitely based on this past performance". W. W. Hawley Limited, Kingston, sold and installed this equipment.

Frigidaire Water Coolers

make a good building better!



Frigidaire Pressure-Type Water Coolers
Available in several models and capacities.
Also bottle-type cooler

Yes, there's one way you can always be sure of dependable, efficient water cooling equipment in capacities just right for the job — *specify Frigidaire.*

Like all Frigidaire Water Coolers, the pressure-type cooler shown at left is compactly designed to give greatest capacity in smallest space. It has Frigidaire's exclusive Cold-Control, which automatically keeps water chilled to the temperature desired by the user. And it's built for years of low-cost, trouble-free service.

Whatever your water cooling needs, there's sure to be Frigidaire equipment to meet them. For full information, call your dependable Frigidaire dealer. Find his name in Yellow Pages of Phone Book under "Refrigeration Equipment". Or mail coupon to Frigidaire Products of Canada Limited, Leaside, Ontario.

MAIL TODAY FOR INFORMATION

FRIGIDAIRE PRODUCTS OF CANADA LIMITED
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Please send latest information on:

☐ Frigidaire Water Coolers

☐ Frigidaire Refrigeration for.. (use)

Name..

Firm Name..

Address..

City.............................. *Prov.*..............................

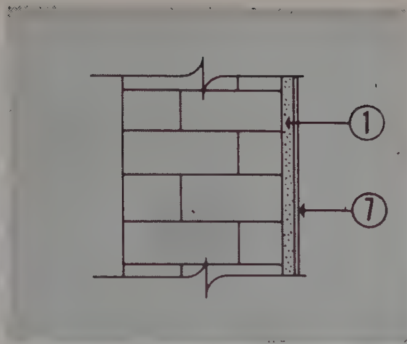
Suggested methods for sealing moisture out of insulation

A good vapor seal is the most effective way to keep moisture out of insulation. Ordinary wall constructions are amazingly permeable to air penetration. And the air travelling through the wall of a refrigerated room contains quantities of moisture.

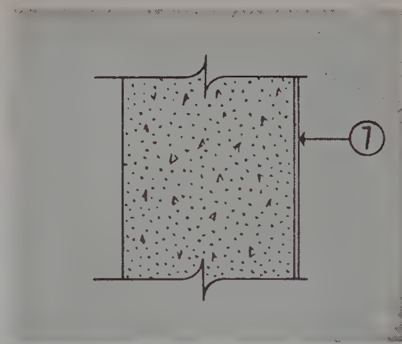
This moisture must be sealed out if the danger of condensation and damaging ice formation within the insulating material is to be eliminated.

Shown here are methods of vapor sealing eight different wall constructions. When these methods are strictly followed, such installations will have maximum protection from moisture damage.

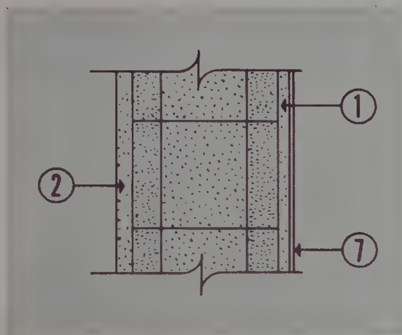
Armstrong's engineers are fully experienced in every phase of low-temperature insulation and will be glad to help with any particular problem. Call your nearest Armstrong district office or write direct to Armstrong Cork Canada Limited, Building Materials Division, 6911 Decarie Boulevard, Montreal.



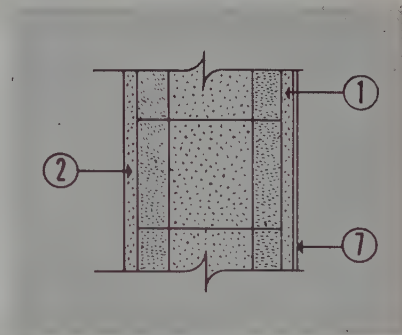
Solid Brick



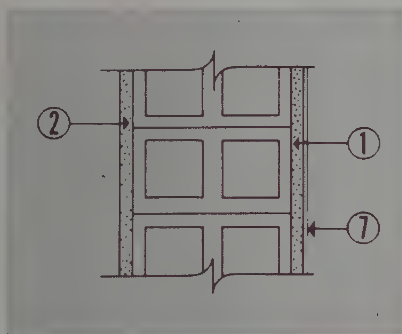
Dense Concrete



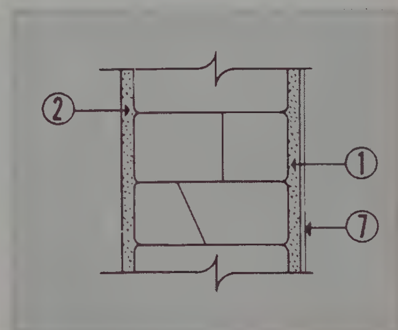
Concrete Block



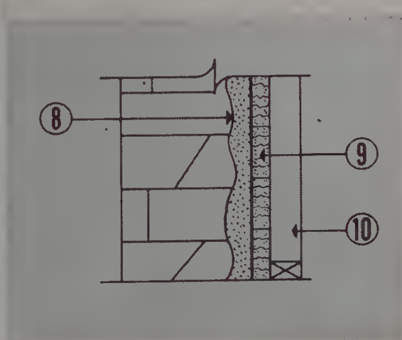
Cinder Block



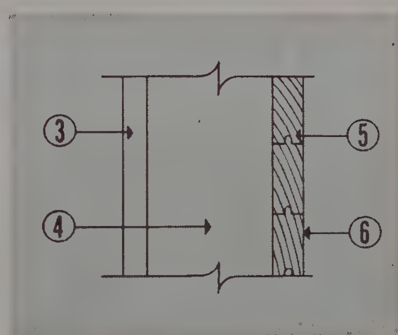
Hollow Tile



Stone



Uneven Stone



Wood

1. ½ inch back plaster
2. Stucco or Gunite cement
3. Weatherboards
4. Studding
5. 1 inch T. & G. sheathing
6. Asphalt Paper
7. Armstrong's Asphaltic Paint
8. Uneven surface of masonry wall
9. First layer of Corkboard
10. Temporary studding

ARMSTRONG CORK CANADA LIMITED

Cold Storage & Building Insulation Contractors

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Designed...



Aerial view of Edmonton

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Distinctive English Gothic design, suitable for homes, hotels, schools, etc. Of cast bronze, brass or iron.



Aerial view of Montreal
Photos courtesy CNR

TRADE YALE MARK

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THE YALE & TOWNE MANUFACTURING COMPANY (CANADIAN DIVISION). ST. CATHARINES, ONTARIO

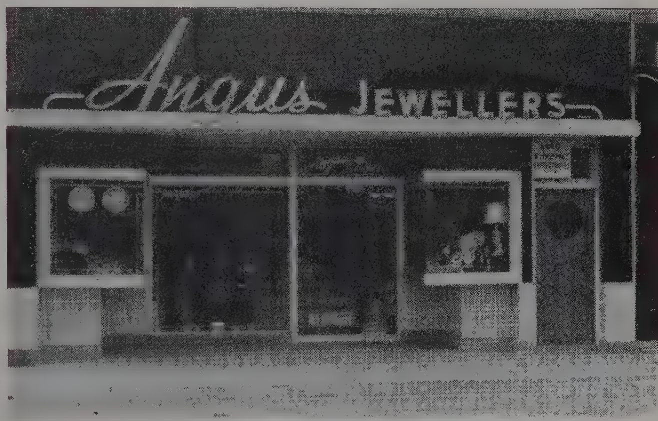
Facts by Pilkington about Glass
FOR ARCHITECTURAL STUDENTS

NO. 37 FACING MATERIALS
Zourite & "Vitrolite"

COMBINED USE OF "VITROLITE" AND ZOURITE

The last two articles in this series have shown why Zourite and "Vitrolite", the modern aluminum and structural glass facing materials have gained such great acceptance. Zourite, with its strong directional pattern and flexibility of application, and "Vitrolite" with its handsome appearance and long life have added to the beauty of many storefronts. It would seem logical therefore, that certain storefront designs would incorporate both "Vitrolite" and Zourite using effectively the best qualities of each.

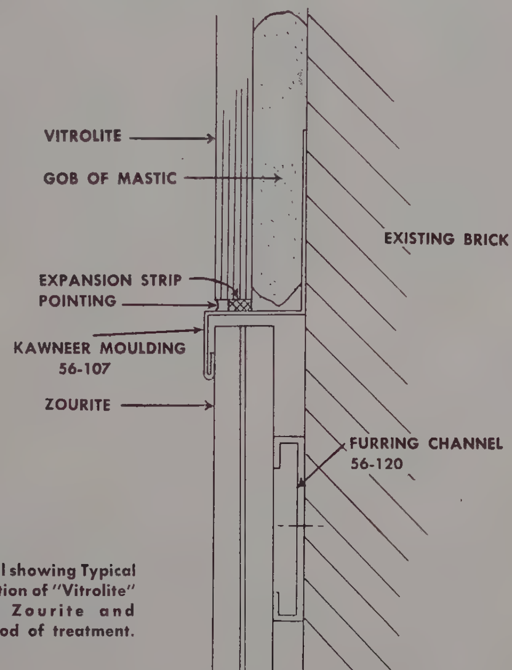
The two photographs shown indicate excellent examples of this combined usage. While large areas of Plate Glass are still the prime factor in storefront design, "Vitrolite" and Zourite facing materials have proved their worth in adding to the beauty and life of any installation in which they appear.



Angus Jewellery Shop, Toronto
"Vitrolite" Facia and Piers, Zourite Bulkhead.



Thomson and Page Ltd., Vancouver
"Vitrolite" Piers and Sign Tower
Zourite Bulkhead and Spandrels



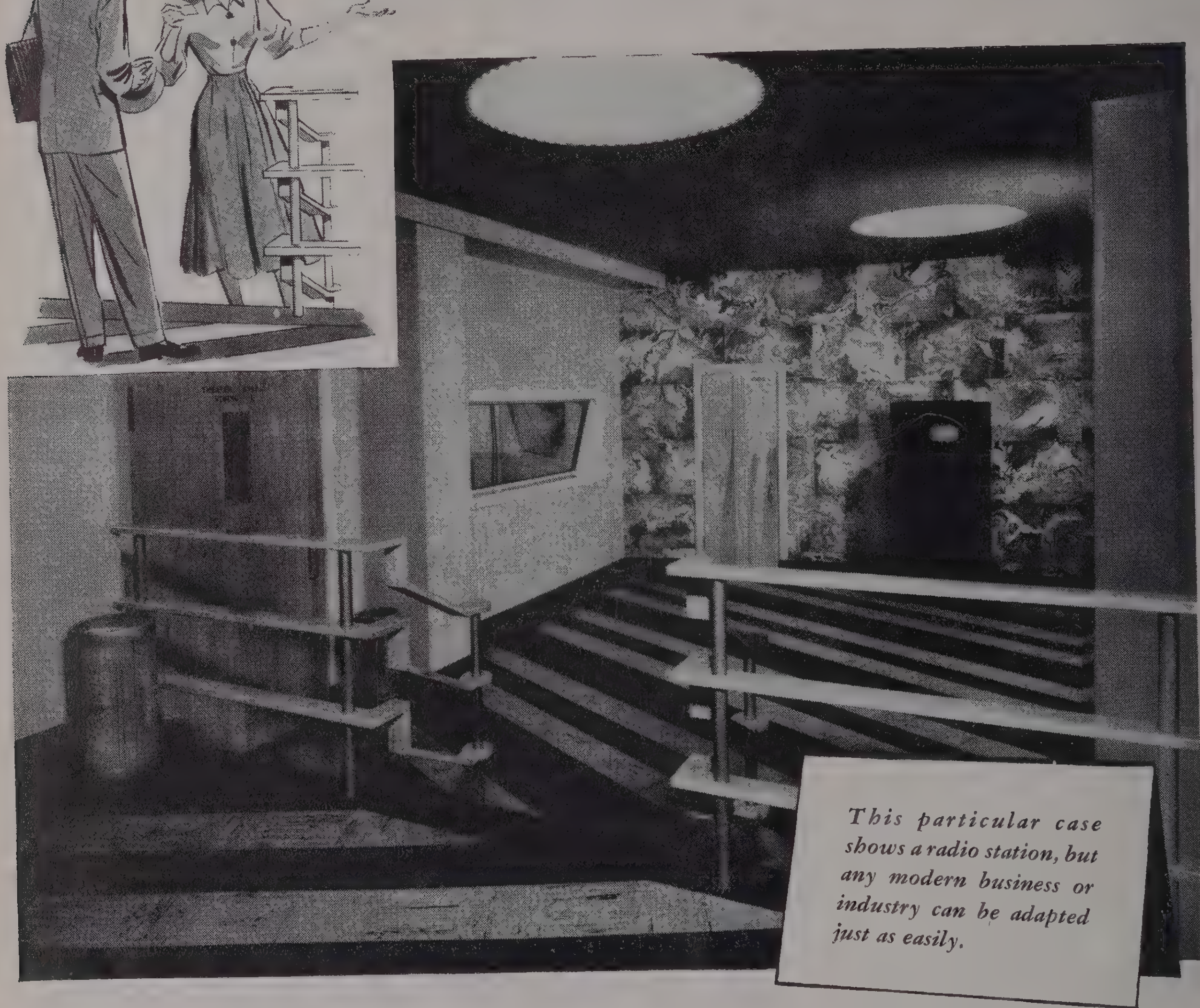
Detail showing Typical Junction of "Vitrolite" and Zourite and method of treatment.

TYPICAL SECTION SHOWING JUNCTION OF COMBINATION VITROLITE-ZOURITE FACE

Reprints of this series are available upon request at any of our branches.

Published by
Pilkington Glass LIMITED • HEAD OFFICE—27 MERCER ST., TORONTO, ONTARIO • BRANCHES: SAINT JOHN, N.B., HALIFAX, MONTREAL, ROUYN, KINGSTON, HAMILTON, ST. CATHARINES, LONDON, FORT WILLIAM, WINNIPEG, REGINA, CALGARY, EDMONTON, VANCOUVER • AGENTS: KITCHENER: TAIT GLASS CO. LTD. • VICTORIA: O'NEIL GLASS and PAINT, LIMITED

Just like your receptionist's smile...
Tile-Tex *puts visitors at their ease!*



Colourful and attractive, TILE-TEX Asphalt Tile strengthens the good impressions gained from a pleasant welcome – small wonder it is used in so many modern reception rooms!

In this instance for example, TILE-TEX was chosen to blend with walls and interior colours, and its use throughout the studio has resulted in decorative designs unobtainable with other materials. More, TILE-TEX lasts – because the colour goes right through the sheet, the floors look as smart as the day they were laid. TILE-TEX features add up to owner satisfaction – proved by the fact that TILE-TEX has been specified for additional installation to make a total floor area of 36,000 square feet.

TILE-TEX Asphalt Tile will meet the floor requirements of all your present and future planning, cost-wise and colour-wise. Get the full details from your local sales office today!

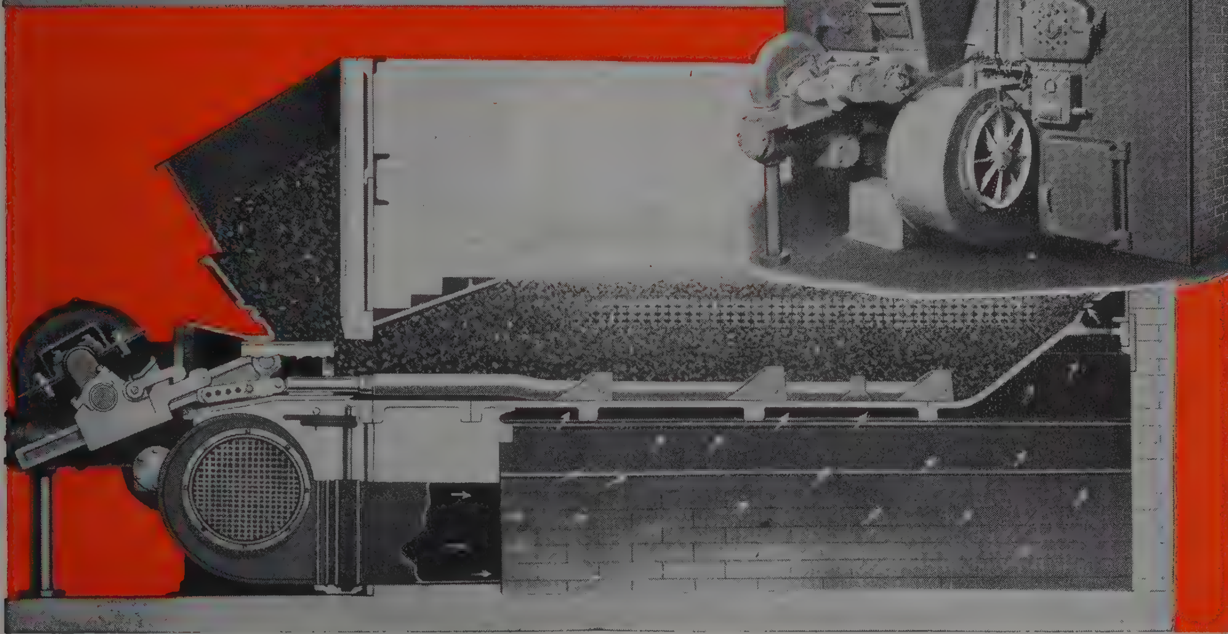
FLINTKOTE MAKES MANY THINGS

Tile-Tex is one of many quality products made in Canada by the Flintkote Company of Canada, Limited, 30th Street, Long Branch, Toronto 14. Sales offices in Vancouver, Edmonton, Calgary, Winnipeg, Toronto, Montreal, Sackville, N.B., and Charlottetown.

Tile-Tex
ASPHALT
FLOOR TILE

A FLINTKOTE PRODUCT . . . MADE IN CANADA

SAVE COAL



with a Babcock-Detroit UniStoker—

for 125 to 250 horsepower boilers. Simple, sturdy design with Babcock-Detroit Adjustable Feed (coal feed control) provides exceptional flexibility on fluctuating loads.

The Babcock-Detroit Adjustable Feed with the Babcock-Detroit UniStoker provides a large number of positive rates of feeding coal.

One control arm of the Adjustable Feed is connected to the automatic regulation and varies the coal feed according to load requirements.

The other arm is an auxiliary hand control, operated independently, to feed in extra coal when needed.

The automatic regulation is also connected to the adjustable fan damper to accurately control the air supply in proportion to the fuel.

Investigate the Babcock-Detroit UniStoker with the Babcock-Detroit Adjustable Feed to reduce your cost of producing steam.

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Branches: Montreal, Toronto, Calgary, Vancouver


Busy season . . . for friendly chimneys
of brick!
★ Yes, this is the season when millions of "stockings are hung by the chimney with care."
And this year, as always, Santa Claus will be climbing down more chimneys of brick—by far—than any other kind.
At this season you can see most clearly *why* brick enjoys this timeless popularity, whether for chimneys or for an entire home.
For this is the time when youngsters and oldsters alike take new pleasure in the *living qualities* you build into their homes—the warmth, the comfort, the feeling of friendliness and security.
It's also the time when we would like to express our gratitude to all of you who have helped build this feeling of friendliness in our homes and in our industry—and to extend to you all, our heartiest greetings of the season.
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STRUCTURAL · CLAY · PRODUCTS INSTITUTE
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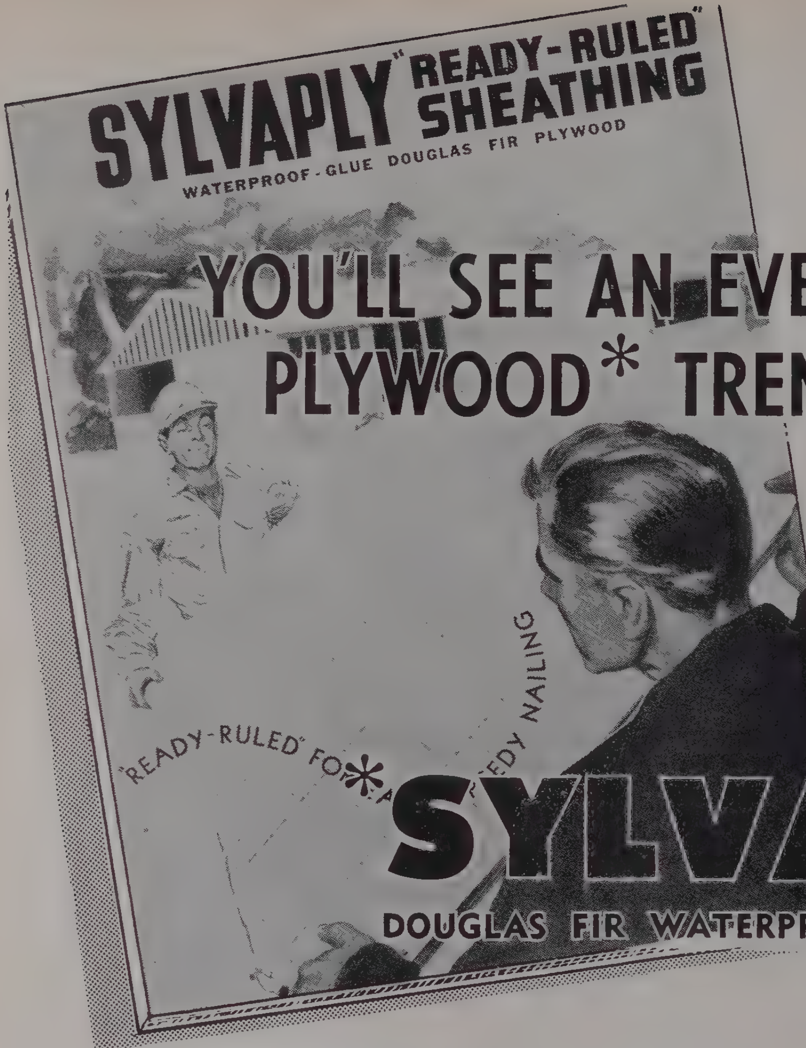
LITTLE FELLOW BRINGING A GREAT BIG WISH

Happy Holiday Season

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DOUGLAS FIR WATERPROOF-GLUE PLYWOOD

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THE UTILITY MEMBER OF THE SYLVAPLY FAMILY

for Architects

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- **NO SHRINKAGE.** Sylvaply Sheathing is scientifically kiln dried during manufacture — always shipped dry.

SYLVAPLY SYLVA-CORD SYLVA-CRAFT SYLVA-TILE MONO-DOR

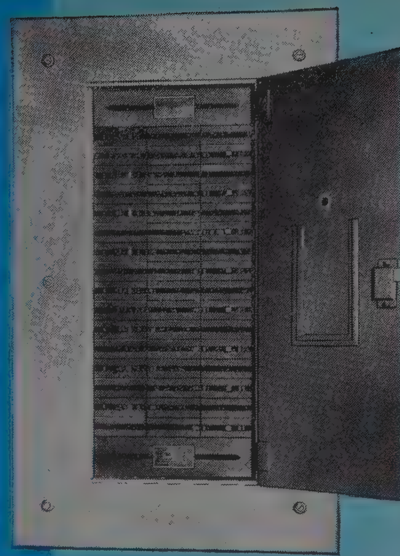
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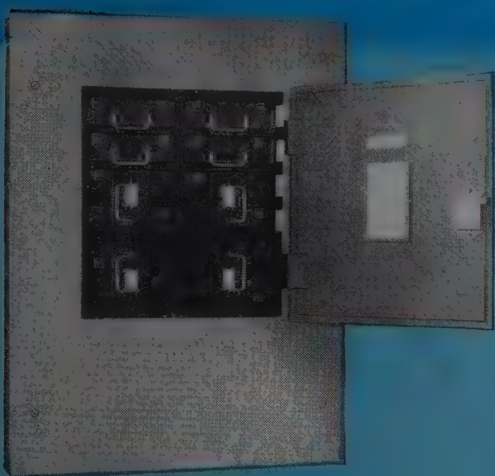
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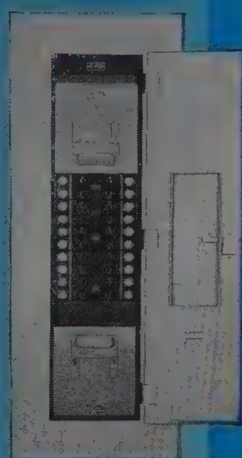
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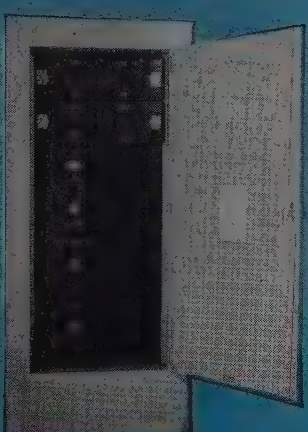
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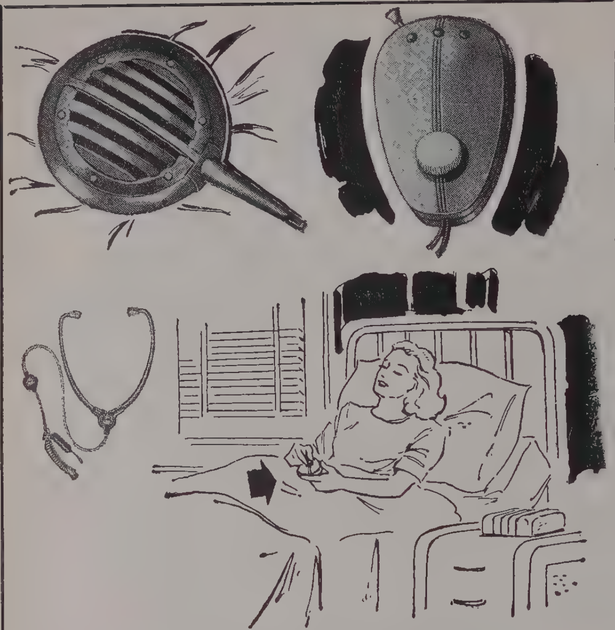
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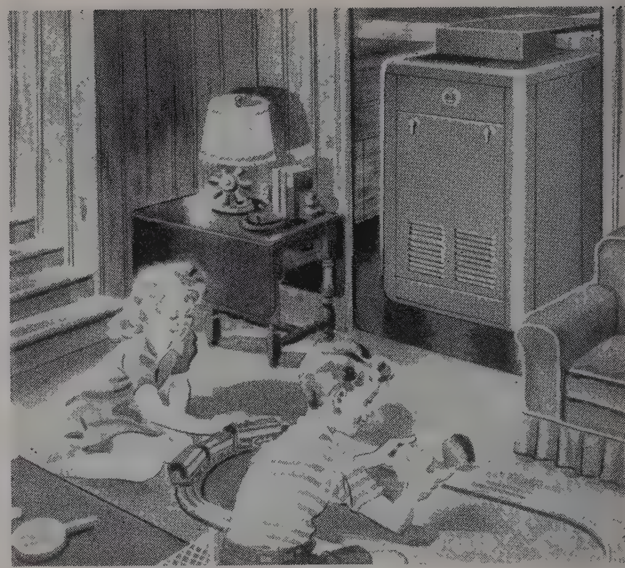
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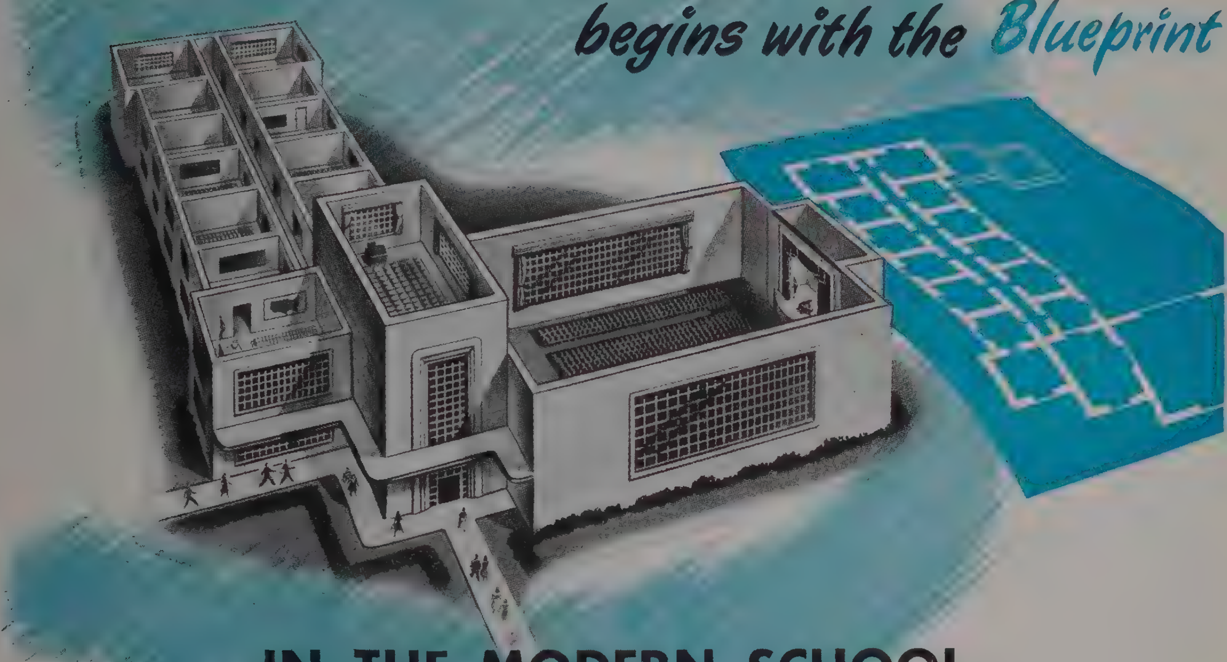
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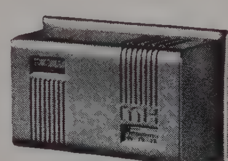


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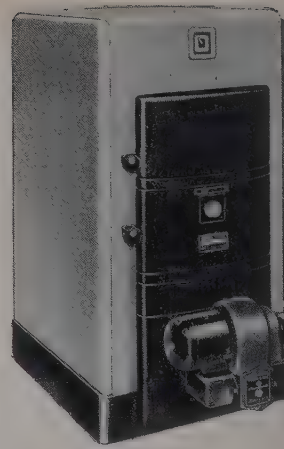
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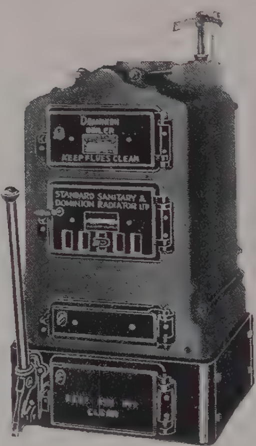
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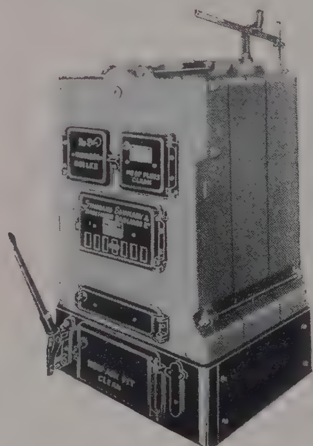
THE "SEVERN" — at left for Stoker; at right for oil.

(Also made for hand-fired coal.)

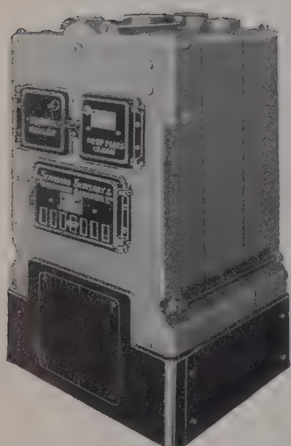
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Capacities — for water — 560 to 1250 square feet installed radiation; for steam — 350 to 780 square feet.

AT RIGHT — The "Dominion" Water Boiler — for hand-fired coal. Capacities — 290 to 465 square feet installed radiation.





AT LEFT — "No. 2 Redflash" for larger homes and small apartments. Capacities — for water — 960 to 2920 square feet; for steam — 600 to 1825 square feet installed radiation.

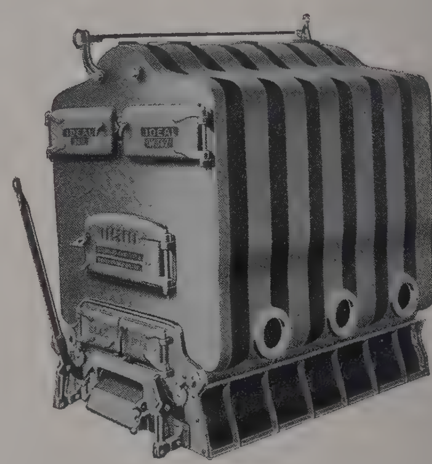


AT LEFT — The "Exbrook" (for oil or stoker) with multi-finned flues for maximum efficiency.

Capacities — for water — 1240 to 2920 square feet; for steam — 775 to 1825 square feet installed radiation.

AT RIGHT—The "Ideal" 36" Sectional boiler. Available in a wide range of capacities for larger buildings.

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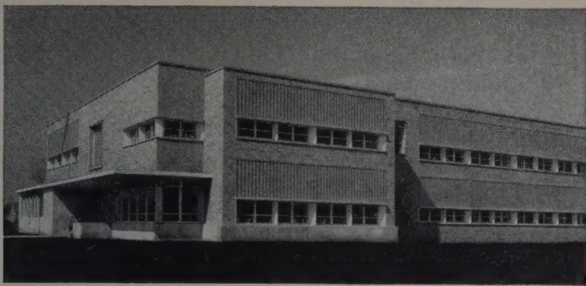
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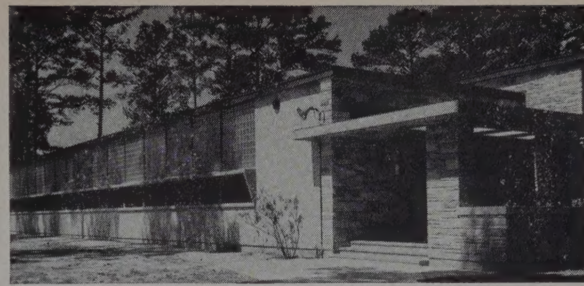
APPLICATIONS — To state name, address, age, place of birth, whether veteran, married or single, number of children, education, occupation, experience, when available.

R. F. DUKE

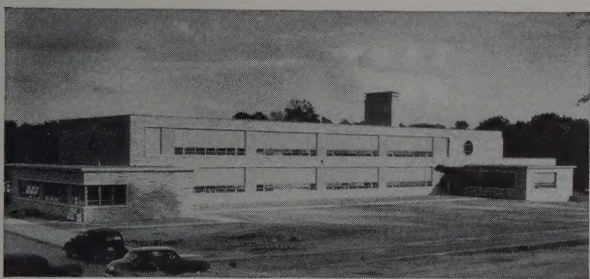
Acting City Architect and Inspector of Buildings.



MICHIGAN! James Vernor Elementary School, Detroit, uses thousands of Insulux *light-directional* glass blocks to give uniform distribution of daylight in classroom interiors. Eberle M. Smith Associates, Architects-Engineers.



TEXAS! Use of Insulux Prismatic Glass Block, plus shaded window sections for visibility and ventilation, means better daylighting for classrooms at St. Theresa's Catholic School in Houston. Architects: Golemon and Rolfe, Houston.



MARYLAND! Unique design of Loch Raven School in Baltimore County, Md., utilizes Insulux Glass Block (No. 351) to add gracefulness to exterior; uniform lighting for desk surfaces on interior. Architects: Gaudreau & Gaudreau, Baltimore.



CALIFORNIA! For the extremely bright sun problem presented by Cragmont Test School in Berkeley, Insulux Glass Block (No. 352), with improved prism faces and special glass fiber screen inside, is used to improve classroom daylighting over old-style windows (extreme left). Architect: John Carl Warnecke, Oakland, Calif.

Four examples of the wide acceptance of Insulux... the light-directional glass block for schools!

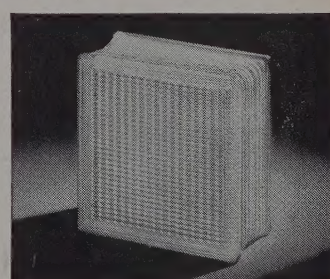
ABOVE are just four schools out of hundreds using *Insulux Fenestration.**

The fast-growing use and specification of Insulux Glass Block in modern schools is due to the fact that the prismatic faces of Insulux (No. 351) change the direction of light rays coming from the outside.

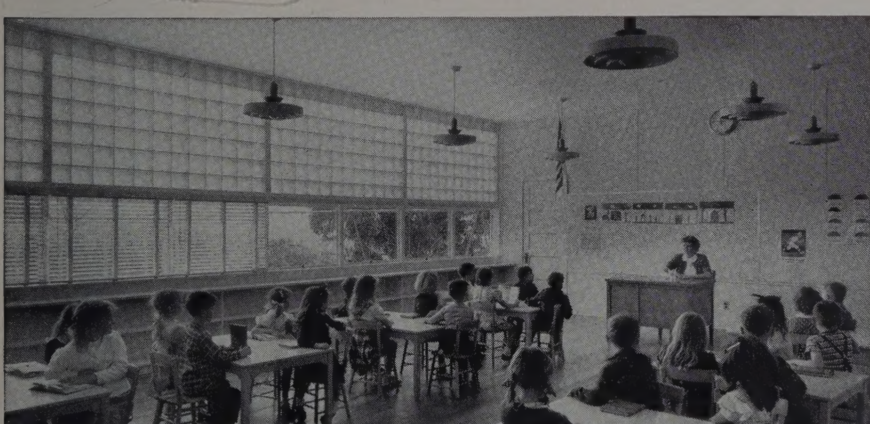
This results in daylight being more uniformly distributed throughout the classroom and the elimination of sharp contrasts within the room.

For further information on the use of *light-directional* Insulux Glass Block, write: American Structural Products Company, Dept. F-62, P.O. Box 1035, Toledo 1, Ohio.

*Insulux Prismatic Glass Block with vision-strip below.



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AMERICAN STRUCTURAL PRODUCTS COMPANY
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